

**Material Culture and the History of Medicine in Shanghai,**

**1912-1949**

**Meishan Zhang**

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## **ABSTRACT**

### Material Culture and the History of Medicine in Shanghai, 1912-1949

Meishan Zhang

From 1912 to 1949, especially under the administration of the Nanjing Government from 1927 to 1937, Shanghai witnessed drastic changes in its political structure, medical culture and social lifestyles through the construction of the public health system and intensive multicultural communication. How did people in Shanghai become acquainted with 'Western' medical equipment? What knowledge and daily practices did people accept along with the promotion of medical products? This thesis examines the sweeping changes in the material culture of Republican Shanghai by focusing on the production and adaptation of medical equipment, as well as the political, cultural and social variations proactively brought by politicians, medical professionals, intellectuals, the media and consumers. My dissertation demonstrates that no matter what identities and responsibilities people consider they have, they exert their subjective initiative to change their lives and social environment, whilst facing medical materials' potential challenges and opportunities.

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## TABLE OF CONTENTS

|  |     |
|--|-----|
| DECLARATION.....   | 1   |
| ABSTRACT .....   | 2   |
| ACKNOWLEDGEMENT.....   | 3   |
| LIST OF FIGURES.....   | 6   |
| CHAPTER 1. Introduction.....   | 10  |
| CHAPTER 2. Public Policies, Political and Cultural Events and Their<br>Connection to Medical Equipment ..... | 95  |
| CHAPTER 3. Media and Medical Equipment in Republican<br>Shanghai.....  | 140 |
| CHAPTER 4. Women and Medical Equipment during the Childbirth<br>Hygiene Construction Movement .....          | 217 |
| CHAPTER 5. Birth Control and Daily Use Medical Products.....   | 274 |
| CHAPTER 6. Conclusion.....   | 337 |
| BIBLIOGRAPHY.....  | 350 |

## LIST OF FIGURES

Figure 2.1 Photo of Liu Ruiheng (刘瑞恒), 1926-1928

Figure 2.2 Scene of Injection in Comics, 1934

Figure 2.3 Scene of Physical Examinations, 1929

Figure 2.4 Examinations for Heart and Lungs, 1934

Figure 2.5 The Opening Day of Dental Clinic, 1929

Figure 3.1 Maxwell Artificial Pneumothorax, c. 1930. © RCP, Photography

John Chase

Figure.3.2 Removal of Placenta (猪叫取胎图), 1891

Figure 3.3 Prof. Roentgen. The Discoverer of X-ray Photography, 1903

Figure 3.4 Model of a Hearing Aid Device, 1934

Figure 3.5 X-Ray Photograph of Lungs Affected by Tuberculosis, 1931

Figure 3.6 X-Ray Photograph of the Lungs after Two Months' of Physical Treatment, 1931

Figure 3.7 Bone Treatment, 1940

Figure 3.8 Operation, 1940

Figure 3.9 Mobile X-ray Unit, 1940

Figure 3.10 X-ray of the Foot of a 4-year Old Child, 1934

Figure 3.11 Foot Damaged by Toe-Pointed Shoes, 1934

Figure 3.12 Devices Used in Foot Clinics in New York City, 1934

Figure 3.13 Scenes of Using a Sphygmomanometer and Microscope, 1937

Figure 4.1 The Red Series 《红色系列 N°3》, 2014

Figure 4.2 *Fenmian Yuer Tu* (Bath Scene after Birth 分娩浴兒圖)

Figure 4.3 Testing the Blood Pressure of a Pregnant Woman in Peking National First Midwifery School in 1929

Figure 4.4 Peking National First Midwifery School Midwives in 1929

Figure 4.5 The Kit and Tools Carried by the Midwives in 1948

Figure 4.6 Standard Medical Devices Corporation Birth Kit 1948



Figure 4.7 The Contents of the Delivery Kit and an Instruction 1948

Figure 5.1 Mrs Sanger in Beijing, 1922

Figure 5.2 Madame Sanger in China, 1936

Figure 5.3 Speton Ideals Anticoncipiens, 1931

Figure 5.4 Lady's Friend, 1931

Figure 5.5 *Jieyuling* ( 节育灵 ) Produced by Sanxing Pharmaceutical Factory, 1943

Figure 5.6 Contraceptive Equipment for Men and Women (advertisement), 1925

Figure 5.7 Wang Wenlan Hoarding Condoms ( 王文兰囤积如意袋 ), 1946

Figure 5.8 Vaginal Diaphragm and Phenyl Mercuric Acetate Jelly, 1948

Figure 5.9 Vaginal Diaphragm Placement, 1948

Figure 5.10 Vaginal Diaphragm Placement, 1948

Figure 5. 11 Hot Water Bottle and Vaginal Lavage Device, 1948

Figure 5. 12 The Posture During Vaginal Lavage, 1948

Figure 5. 13 Birth Control Gospel (节育福音), 1942

## Chapter 1 Introduction

The development of medical equipment is closely related to human health and can improve the quality of people's lives. In 1947 Renji Hospital in Shanghai claimed to have the latest medical equipment: X-ray machine, cystoscope, anesthesia machine and thermocautery.<sup>1</sup> The inhabitants of Shanghai, thus, had access to life-saving and life-enhancing medical technologies. However, at the beginning of the Republican period, in 1912, almost none of this medical equipment was available in the city. From 1912 to 1949, especially under the administration of the Nanjing Government from 1927 to 1937, Shanghai witnessed drastic changes in its political structure, medical culture and social lifestyles through the construction of the public health system and intensive multicultural communication. How did people in Shanghai become acquainted with 'Western' medical equipment? What knowledge and daily practices did people accept along with the promotion of medical products? This thesis will examine the sweeping changes in the material culture of Republican Shanghai by focusing on the production and adaptation of medical equipment, as well as the political, cultural and social variations proactively brought by politicians, medical professionals, intellectuals, the media and consumers.

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<sup>1</sup> Zhu Mingde and Chen Pei eds, *Renji Yiyuan 155 Nian* (仁济医院 155 年 A 155-Year History of Renji Hospital) (Shanghai: Huadong Ligong Daxue Chubanshe, 1999), pp. 8, 15.

In terms of the research object's geographical area, this thesis focuses on Shanghai, although other regions, such as Beijing and Guangzhou, are also involved. The characteristics of the social transformation period were particularly distinct in Shanghai. Firstly, during the period of the Republic of China, the distribution of medical equipment was uneven. Shanghai was the area with the most concentrated medical resources. Shanghai's leading position in business made it relatively easy to obtain medical resources from transnational corporations.<sup>2</sup> Secondly, there were frequent exchanges between what were called 'Chinese (or, more precisely, national) medicine (国医)' and 'Western medicine (西医)', as well as various medical schools. This intense communication partly benefited from the efforts of the Public Health Department of Shanghai Municipal Council and the French *Conseil Municipal* to tackle public health problems within the Shanghai International Settlement and the French Concession.<sup>3</sup> Thirdly, Shanghai was a pioneer city in implementing the Nanjing government's health policy. Largely because of the presence of so many foreigners in the city, the Nanjing Government was keen to demonstrate its efforts in the arena of public health in Shanghai,

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<sup>2</sup> On the consumer culture of medial products, see Sherman Cochran, *Chinese Medicine Men: Consumer Culture in China and Southeast Asia*, (Cambridge: Harvard University, 2006).

<sup>3</sup> On how colonialism in the form of the Shanghai Municipal Council shaped the city of Shanghai in terms of public health, see Isabella Jackson, *Shaping Modern Shanghai: Colonialism in China's Global City*, (Cambridge: Cambridge University Press, 2017), pp. 164-202.

China's window to the wider world. Shanghai also preserved relatively abundant archives of governmental documents, such as correspondence between medical companies and the Health Bureau, and continuously updated regulations and statistical information on implementing the policies.<sup>4</sup> Therefore, studying Shanghai can provide a more thorough investigation of the implementation of public health and medical equipment in China, with awareness that it does not represent the general situation in China.

Although in English it is problematic to refer to 'the West' as a single entity, I use the term 'Western medicine' to describe the kinds of medical practices and equipment that were introduced from abroad, as it was the term used at the time '西医'. Historians now rightly acknowledge the variety of medical developments around the world, but it remains meaningful to group this medicine together in a way that made sense to contemporaries in republican China.

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<sup>4</sup> On the creation of medical and sanitary infrastructure in Shanghai, see Kerrie L. MacPherson, *A Wilderness of Marshes: The Origins of Public Health in Shanghai 1843-1893*, (New York: Oxford University Press, 1987); Yip Ka-che, *Health and National Reconstruction in Nationalist China: The Development of Modern Health Services, 1928-1937*, (Ann Arbor: Association for Asian Studies, 1995).

This introduction chapter contains five parts: a clarification of key concepts, a review of previous literature, the original research questions, main content and research approaches of each chapter, primary sources and a conclusion.

### **Crucial Concepts in the Study of the History of Medicine and Material Culture in the Republican Period**

Before moving to the research topic of the modernisation of Republican China, it is necessary to clarify key concepts in the field of the history of medicine and in this dissertation, including discussing the meanings of ‘modernisation’ and ‘modernity’, the ‘modern’ and the ‘traditional’, the ‘old’ and the ‘new’, the ‘West’ and the ‘Chinese’, and the ‘Western medicine’ and the ‘Chinese medicine’, as well as the ‘medical profession’ and ‘professionalisation’. A clear exposition of these concepts, which often cause confusion, sets up the theoretical foundation for my research.

#### **Modernisation(现代化/近代化) and Modernity(现代性/近代性)**

Many books have discussed the concept of modernisation and modernity and the difference between the two. Generally, modernisation is a process of overall social change, reflecting the renewal of society. The application of Chinese history covers ‘Westernisation’, ‘Europeanisation’, ‘industrialisation’,

‘urbanisation’, ‘rationalisation’ and, of course, ‘medicalisation’. Modernity is the goal of modernisation and the recognition and summary of social characteristics, based on various reflections and criticisms of modern social theories.<sup>5</sup> Of course, what is considered modern is a constantly shifting concept: what was modern in 1912 would, in some cases, have been seen as old-fashioned by 1949, whilst what was perceived as modern in China was already unremarkable and commonplace in Japanese cities. The meaning of ‘modern’ varied widely by time, geographical location and urban or rural status. Some historians, therefore, reject the term as being less than useful, but, as it was such a widespread and accepted concept for those in republican China, this dissertation uses it in the sense it was understood at the time: broadly new, scientific, desirable and imported from abroad.

The ‘modernisation’ of medicine in China was not simply the importation of foreign medicine. Firstly, there were calls for modernisation or Westernisation of traditional Chinese medicine in the late Qing dynasty. By the 1930s Chinese medicine practitioners had incorporated the ‘Westernisation of Chinese Medicine’ into Chinese medicine history. For example, Xi Liheng, a well-known Chinese medicine expert, emphasised the

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<sup>5</sup> Discussions on the overall definition for ‘modernity’ and ‘modernisation’ includes, A. R. Desar, ed., *Essays on Modernization of Underdeveloped Societies*, (New York: Humanities Press, 1972). Samuel Phillips Huntington, *Xiandaihua: Lilun yu Lishi Jingyan de Zaitantao* (现代化：理论与历史经验的再探讨 Modernisation: A Re-Discussion of Theory and Historical Experience), translated by Jingming Zhang, (Shanghai: Shanghai Translation Publishing House, 1993).

remarkable future of Chinese medicine as *Zhongxi Huitong* (中西汇通 the Confluence of Chinese and Western medicine) in his book *Zhongguo Yixue Yuanliu Lun* (中国医学源流论 On the Origin of Chinese Medicine)(1935).<sup>6</sup> Regarding the ‘modernisation’ process of Chinese medicine, in *Zhongguo Yixueshi* (中国医学史 History of Chinese Medicine)(1937) the medical historian Chen Bangxian summarised the development process of Chinese medicine in the early 20<sup>th</sup> century as being ‘from the age of gods to the age of experimentation, and then entering the age of science’. He argued that the flourishing of new medicine was after the importation of Western and Japanese medicine and, consequently, the thinking of the Chinese people had changed.<sup>7</sup> At this time many traditional Chinese medicine physicians still believed in traditional medicine’s value and maintained the essence of traditional Chinese medicine. Furthermore, they believed that the introduction of Western science could improve traditional knowledge and promote the modernisation of traditional Chinese medicine.

Secondly, modernisation includes the ‘modernity’ embodied in the establishment of China’s medical and health system. In recent years scholars such as Frank Dikotter, Sean Hsiang-lin Lei, Xinzhong Yu, Angela Ki Che Leung

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<sup>6</sup> Liheng Xie, *Zhongguo Yixue Yuanliu Lun* (中国医学源流论 The Origin of Chinese Medicine), (Taipei: Jinxue Shuju, 1970), p.55.

<sup>7</sup> Bangxian Chen, *Zhongguo Yixueshi*, (中国医学史 History of Chinese Medicine), (Taipei: Taiwan Shangwu Yinshuguan, 1981), (first published in 1937), p. 257.



and Ruth Rogaski have contributed significantly to this field.<sup>8</sup> Eugenics was one of the forces biologising the society, which, in some cases, led to individual reproductive rights being subordinate to collective needs. Frank Dikotter stresses the importance of eugenics to individuals, as it allows the modernising elites to maintain an objective perspective and represent their claims on social order.<sup>9</sup> During the republican period the theory of eugenics was not prevalent enough to reshape ordinary people's lives in different social backgrounds, despite the strong hope for a strong race and country. However, the popularisation of medical equipment and hygienic items gradually created a new form of class bias by redefining people as modern citizens or the drawbacks. On the construction of health system in practice, Rogaski proposed 'hygienic modernity' to summarise the meaning of *weisheng* (卫生) in the Republic of China, pointing out that *weisheng* was related to *yangsheng* (养生 health preservation) in the imperial times, which means to 'guard life'. The modernity in this concept was embodied in the individuals' and the nation's improvement promoted by factors such as national power, scientific standards and body cleanliness. Although Rogaski's

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<sup>8</sup> Lei Sean Hsiang-lin, 'Weisheng Weihe Bushi Baowei Shengming: Minguoshiqi Linglei de Weisheng, Ziwo yu Jibing' (卫生为何不是保卫生命: 民国时期另类的卫生、自我与疾病 Why Weisheng is Not about Guarding Life? Alternative Conceptions of Hygiene Self, and Illness in the Republican China), *Taiwan Shehui Yanjiu Jikan*(台湾社会研究季刊), 54 (2004), 17-59, Xinzhong Yu, 'The Concept of Public Health in Qing Dynasty Jiangnan and its Changes in Modern Times: Focusing on Environment and Water Supply', *Frontiers of History in China* 2 (2007), pp.379-415; Angela Ki Che Leung and Charlotte Furth, *Health and Hygiene in Chinese East Asia: Policies and Publics in the Long Twentieth Century*, (Durham: Duke University Press, 2010).

<sup>9</sup> Frank Dikotter, 'Race Culture: Recent Perspectives on the History of Eugenics', *American Historical Review*, vol. 103, no. 2 (1998), pp. 467-78.

research focuses on Tianjin, she established a model to evaluate the modernity lying under the construction of the public health system. Her comparative methods for both Japan and China comprehensively examined the national identity and foreign influence within the administrative systems.<sup>10</sup>

However, Rogaski's study focused more on the perspective of political system construction. She was aware of the fact that a top-down approach would not tell the full story of the ascendancy of hygienic modernity, and how individuals experienced, internalised and, at times, resisted ideas and policies that were being imposed on them. Moreover, the development of consumer culture and the power of the media also influenced people's choices of medical practices and the adaptation of hygienic ideas, which should not be overlooked as new features of modernity.

Therefore, while investigating the transformation of medical equipment, this thesis does not repeat Rogaski's outstanding work on political reforms, but aims to stress the interaction among political, cultural and economic elements and people's experiences. Furthermore, I understand the concept of 'modernisation' as a direction of people's efforts towards their ultimate

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<sup>10</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*, (Berkeley: University of California Press, 2004).

goal ‘*qiangguo qiangzhong*’ (强国强种 build a strong country and race) at that time. It is complex, changing and unique in every city. Through interaction with different cultures and events, modernisation embodies thoughts and methods. Modernity is the characteristic of the times that later scholars analysed and summarised in this process. Regarding Shanghai, compared with other regions in China, especially rural areas, the influence of foreign occupation, commercial culture and educational level played a distinctive role, and was as important as political reforms in forming the full image of its modernity.

### **The Modern and the Traditional**

In terms of ‘Western medicine’ encountering the ‘traditional medicine’ in China, Rogaski used a persuasive case displaying the multiplicity of colonialism (including Japanese) and the disunity of colonial powers and of science to avoid the argument of whether ‘Western medicine’ was playing the part of a hero as a body of homogenous and uncontested knowledge when compared with Chinese medicine.<sup>11</sup> In this way the problems, such as who is modern and whether modern means better, would be avoided, since the most effective instruments to cure would stand out and gain applause regardless of their origins.

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<sup>11</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*.

Nevertheless, one aspect that cannot be avoided is the contradiction between modern and tradition already existed and had caused intense public debate in the Republican period. The embodiment of 'modern' in Western factors was only started by their supporters for business purposes, political ambition or good experience of using them after the colonial encounter. This dissertation especially pays attention to the rich meanings behind the embodiment of the 'modern', which usually involve careful plans, strategies and mixed reviews.

### **The New and the Old**

There was little disrespect toward old things in imperial Chinese: antiques were admired, collected and shown off by the rich, and clothes and furniture were fully used as an embodiment of the virtue of being thrifty. Thus, the notion of the old and the traditional does not represent peoples' resistance to the existing culture.

Another misconception relates to whether the 'new' represents 'improvement'. A great contribution by Roy Porter, which is constructive not only for the history of medicine, but for the whole history discipline, is that he humanises 'development' by demonstrating the nonlinearity of progress. There might be loose theories, misuse of things and erratic decision-

making.<sup>12</sup> Porter's admonition of being critical of the 'new' is the premise when facing the emergence of modern things in Chinese society. However, a tendency of exaggerating the new was very obvious in the Republican period. An example is that, due to the doubt about the newly coming Western medicine, some outstanding Western medical practitioners used the traditional Chinese diagnostic method of assessing the pulse while wearing stethoscopes and thermometers to weaken patients' hostility and increase their turnover after those instruments were embodied with scientific and professional meanings.<sup>13</sup> Pang Jingzhou (1899-1954), an advocate of scientific methods who was the vice chairman of Shanghai Medical Association (上海医学会), criticised this form of compromise by calling it 'degenerate medicine'.<sup>14</sup> The firm rejection of the old and local indeed demonstrated some scholars' determination to strengthen the country in the Republican period, but without a dialectical view of the possible benefit of combining both. However, my dissertation tries to avoid generalising opinions of the old and the new, since attitudes can differ through how the equipment was promoted.

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<sup>12</sup> Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity* (New York: Norton, 1998).

<sup>13</sup> Yang Xiangyin, Wei Huan, 'The National Medical Association of China and the Process of Profession', *Social Science Journal*, 05 (2014), pp. 155-161.

<sup>14</sup> Pang Jingzhou, 'Lun Xinyi Buying wei Huanjing Bipo er Jiuyihua' (论新医不应为环境逼迫而旧医化 The Discussion of New Form of Medicine Should not be Forced to Degenerate by Circumstances), *Yiyao Pinglun* (医药评论 Medicine Comments), 13 (1929).

## **Western Knowledge and Imperialism**

As far as the Chinese were concerned, both the 'modernisation' of medical knowledge and the medical and health system were led by Western knowledge and the political system. Simultaneously, the knowledge and systems were the cultural foundation of Western imperialism and colonialism in the 19<sup>th</sup> century.

The modernisation of medicine in China is inseparable from the medical development in the United States, Europe, Japan and other countries. The ways in which Western countries and Japan exerted influence on this process depended, to a certain extent, on their own medical, political and military situations and their geographical location. For example, the spread of British medicine in China initially benefited from missionaries and colonialism. In the United States, through the Rockefeller Foundation, medical education was promoted systematically with reference to Johns Hopkins University. It could be said that missionaries and colonial forces are an external cause of reshaping Chinese medicine. Many medical students returning from Europe, America and Japan form the backbone of the modern administrative system and teaching practice centred on Western medicine. The professional groups

they established promoted exchanges within and among the knowledge systems of different countries.

At the end of the Qing Dynasty several overseas student projects to study Western technology and science initiated the breaking of Chinese intellectual isolation. Yung Wing's Chinese Educational Mission was the first official department to provide higher education opportunities for Chinese students to study in the United States. From 1872 to 1875, through the efforts of some reform-minded officials, the Chinese Educational Mission enabled 120 Chinese students to study there.<sup>15</sup> This provided a way for Chinese students to systematically study the natural sciences and social sciences of the Enlightenment Age that were beyond the Four Books and Five Classics. The next wave of overseas studies was initiated by the Boxer Indemnity Scholarship, which was part of Roosevelt's 'cultural investment', with an agenda to extend the United States' influence to the Far East. Claiming to help China to 'adapt itself to modern conditions' Roosevelt's intention focused more on creating a group of American returned students who would have a strong political impact on China. From 1909 to 1929 the overseas students on this programme were as many as 1,289 in total, most

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<sup>15</sup> On the overseas students in America, see Arthur G. Robinson, 'Pilgrims to Western Seats of Learning- China's First Educational Mission to the United States', *Chinese Studies in History*, vol. 36, 4 (2003), pp. 63-87; Zhang Yufa, Returned Chinese Students from America and the Chinese Leadership (1846-1949), *Chinese Studies in History*, vol. 35, 3 (2002), pp. 52-86.

of whom majored in science, technology, agriculture, business and medicine. In this case the so-called 'modern' education for those students largely composed of the American political culture, knowledge system and lifestyle, as well as pro-American sentiments. Many of those returned students, such as Hu Shi, Zhao Yuanren and Yang Shixian, became fundamental contributors from Peking University, Nankai University, Qinghua University and other influential educational institutes. The specific selection method was based on the Chinese and English exams. Although there are no statistics on the family backgrounds of these students, it could be inferred that most of them came from reformist political elites who supported developing industries to save the country or wealthy families who do not exclude foreign cultures. Applying what they had learned in the United States they were committed to pioneering a road to rejuvenation that suits China's difficult national conditions, which enriched the Chinese elites' discussions on 'the modernisation of China'.<sup>16</sup>

The first batch of overseas students sent by the Republican government were merits students, most of whom dropped out of their school to join Sun Yat-sen's revolutions. After the successful revolution of 1911, on one hand,

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<sup>16</sup> Wei Zhou, 'Qianyi Gengkuan Liumeisheng de Yingxiang - Yi Kangnaierdaxue Liuxuesheng Weili' (A Brief Discussion on the Influence of the Students Studying in the U.S. with the Boxer Indemnity- Take Cornell University as an example), *Changchun Gongye Daxue Xuebao* (Journal of Changchun University of Technology), 6(2011), pp.101-3.



Sun Yat-sen hoped to cultivate talents in science, engineering, law, politics and finance. On the other hand he intended to reward young people who had dropped out of school to participate in the revolution. According to the speculation of Shu-ching Lai, around 80 students, after careful investigation and selection from the Bureau of Merits, travelled abroad on a mission to devote themselves to the political, economic and educational construction of the Republican China.<sup>17</sup> In consulting Yu-chu Wang's research on Chinese intellectuals, Lai found that the majority of the students were from revolutionary provinces and coastal provinces, such as Guangdong, Fujian and Anhui. The United States, France and the U.K. were the top 3 study destinations, which highlighted that the Beijing government recognised the levels of the political and economic development of these countries and suggested the government's expectation for China's future direction and path. Despite the limited information on the whereabouts of these students most of them once again assisted Sun Yat-sen after returning home. For instance, Chen Qiyou later worked in the Ministry of Finance of the Beijing Government, Song Ziwen served as Sun Yat-sen's English secretary and then participated in preparing the Central Bank.<sup>18</sup> In the early days of the Republic of China the dispatch of merits students did not converge into a powerful

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<sup>17</sup> Shu-ching Lai, 'The 1912-3 Bureau of Merits of the Nanking Provisional Government and the Sending of Merits students Studying Abroad'(Minchu Jixunju yu Jixun Liuxuesheng de Paiqian), *Academia Historica*, 12(2009), pp. 57-96.

<sup>18</sup> Yichu Wang, *Chinese Intellectuals and the West, 1872-1949*, (Chapel Hill: University of North Carolina Press, 1966).

political force guided by the spirit of the Revolution of 1911 under the turbulent situation. However, many of them were pioneers in science, politics and economics, such as Xiao Youmei, the father of modern Chinese music education, Yang Quan, one of the founders of the Academia Sinica, and Ren Hongjun, a Cornell graduate who founded the Science Society of China (中国科学社).

The aforementioned study abroad programs belong to the scope of the publicly funded study abroad operated by the central government. In addition, many provinces had their own places for studying abroad at official fees. The criteria for selecting international students and the destination countries showed, to a certain extent, the government's different ideas of the road to a strong country. The common idea was to strive for the loyalty of international students towards the government. At the same time these projects had a direct effect on the studying abroad choices for self-financed students. Among the more significant number of self-financed international students with greater freedom of choice the factors affecting their choice of country to study in and their whereabouts after graduation were more complicated. This greater number of self-financed students also played an essential role in the discussions of, and actual contribution to, China's modernisation.

Up until 1949 about 150,000 Chinese students had studied abroad.<sup>19</sup> Generally, the number of Chinese students travelling to each foreign country each year was not only influenced by each country's national strength, but affected by the its relationship with China. The United States, followed by European countries, had been the main destination prior to the First Sino-Japanese War in 1894. Following Japan's victories in the wars against China from the late 19th century, while the anti-Japanese sentiment reached a high point, Chinese people realised the leap in Japan's national power achieved through reforms. Furthermore, the outbreak of the First World War also dampened people's enthusiasm for studying in Europe. Consequently, Japan became the main destination from 1896 to the mid-1930s. As a result of Japan's invasion of Manchuria in 1931 the number of overseas students going to Japan decreased and the U.S. and European countries regained their leading status. Other factors, such as lower costs and similar language, also contributed to people's inclination to choose to study in Japan.<sup>20</sup>

In terms of medical students, despite the lack of continuous statistics, Japan, the United States and Germany had become the three major countries with the most significant number of medical students, due to their academic

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<sup>19</sup> Qisheng Wang, *Liuxue yu jiuguo* (Studying Abroad and Saving the Nation), (Shanghai: Guangxi Normal University Press, 1995), p.2.

<sup>20</sup> Yufa Zhang, 'Returned Chinese Students from America and the Chinese Leadership(1846-1949)', *Chinese Studies in History*, vol. 35, no. 3 (2002), pp. 52-86.

advantages and large base of international students.<sup>21</sup> Due to Japan's successful example of replacing the German medical system with the Japanese HAN prescription medicine based on Chinese medicine, intellectuals in the late Qing Dynasty, such as Yan Fu and Liang Qichao, highly praised the learning from the Japanese medical education system and advocated the abolition of Chinese medicine.<sup>22</sup> Under the advocacy of reformists in China's late Qing Dynasty Chinese medical students flowed to mainly Japan. The beginning of the founding of the Republic of China was precisely when these overseas students returned to China in large numbers. They became an essential medium in the experience of Japanese Western medicine transplanted in the local area flowing to China. They were also leaders in exploring the modern medical education system. 1907 experienced the most significant number of medical students studying in Japan in the late Qing Dynasty. According to a survey conducted by the Chinese Medical Association( 中国医药协会 ) at that time there were 95 students.<sup>23</sup>

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<sup>21</sup> Shanling Wei, 'Structural Analyses of Students Studying Abroad in the Early Republic (1912-1927)', *Journal of South China Agricultural University*, 11 (2012), pp. 141-50.

<sup>22</sup> Zhike Ai, 'Wanqing de Zhongxiyi Huitong jiqi Zouxiang' (The Thought of Combining Traditional Chinese and Western Medicine in the Late Qing Dynasty and Its Trends), *Historical Archives*, 2 (2010), pp. 120-25.

<sup>23</sup> Chinese Medical Association, 'Liuxue Riben Yiyao Xuexiao Tongren Xingming Diaochalu' (Survey of the Names of Students Studying in Japanese Medical Schools), *Yiyaoxuebao* (Chinese Journal of Medicine), 6(1907), PP. 1-4.

According to Yahua Niu the medical students studying in Japan mainly came from the southeast coastal area. Before 1911, of the 163 medical students recorded, 91 were from Jiangsu (including Shanghai) and Zhejiang. After returning to China they established medical journals, compiled medical books translated, founded medical schools, promoted the establishment and improvement of health administrative regulation, and organized medical groups, which painted the modernisation of medicine with European, American and, especially, Japanese colours. There were some pioneering figures: Hou Ximin served as the Director of Health in Tianjin and Beijing; Tang Erhe founded the Chinese Pharmaceutical Society(中华民国医药学会); Wang Huanwen founded the Chinese Pharmaceutical Association (中华药学会) and served as the director of the Health Laboratory of the Ministry of the Interior; Huang Shicun was a former *Chinese Journal of Health* (中国卫生杂志) editor; and Wu Sheng once served as Director of the Health Department of the Ministry of the Interior.

Some medical students were active in Shanghai for a long time after their graduation and contributed to the demonstration role of Shanghai's modernisation of health in China. They were Wang Qizhang, who once served as the president of the Shanghai Public Hospital (上海公立医院) and

initiated the Shanghai Medical Association (上海医师公会), the founder of Shanghai Southeast Medical University (上海东南医科大学), namely Zhou Wei, and Jiang Kezong, the former director of the Central Anti-epidemic Division, the Director of the Department of Health of the Republic of China, namely Jin Baoshan, and the president of the Shanghai Medical Association, Yu Yunxiu, who was also editor-in-chief of the *Chinese Medical Journal* (中华医学杂志).<sup>24</sup>

In general many health administrative officials in various provinces or localities were students who had travelled back from Japan. They were the key to quickly bringing these Chineseized medical terms from Japan to China. Therefore, in the local society, Japanese Western medicine played a subtle and more general role in modernising Chinese medicine with the help of medical administration and the convenience of the circulation of Chinese characters.<sup>25</sup>

In addition, the domestic women's schools in the late Qing Dynasty promoted the development of women's study abroad. The United States and

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<sup>24</sup> Yahua Niu, 'Qingmo Liuri Yixuesheng jiqi dui Zhongguo Jindai Yixue Shiye de Gongxian' (Chinese Students Studying in the Medical College of Japan in the Late Qing Dynasty and Their Contribution to Modern Medicine of China), *Zhongguo Keji Shiliao* (China Historical Materials of Science and Technology), vol. 24, no. 3, (2003), pp. 228-43.

<sup>25</sup> Yahua Zhu, 'Qingmo Liuri Yixuesheng Jiqi dui Zhongguo Jindai Yixue Shiye de Gongxian' (The Special Contributions of the Returned Students in Japan in the Late Qing Dynasty to the Cause of Modern Chinese Medicine), *China Historical Materials of Science and Technology*, vol. 24, no. 3 (2003), pp. 228-43. On the modernisation of medicine in Japan, see Michael Shi-Yung Liu, *Wushidao yu Liuyedao: Riben Xiyang Yixue zhi Jienu yu Kaizhan*, (Katana and Lancet: Acceptance and Development of Western Medicine in Japan), (Taipei: National Taiwan University, 2012).

Japan remained the top choices for female international students. For example, in 1925, regarded as the peak time of studying in the United States, the total number of students studying in the United States was 2,500, of which 640 were women.<sup>26</sup> In Japan, from 1914 to 1926 the total number of international students was 26,530, among which 1,024 were female students.<sup>27</sup>

The Ministry of Education of the Beiyang Government included good wives and loving mothers in women's education for studying abroad and stipulated that the learning acquired by students studying abroad should focus on teaching, medicine, art and music. This tendency for women to embark on courses had a profound impact on the modernisation of the related occupations of women after returning to China, including the modernisation of gynaecology and obstetrics.<sup>28</sup> Moreover, this thesis pays attention to the medical performance of various countries that had a profound impact on Shanghai's modernisation and the integration of medical cultures from multiple countries in the process of popularising medical devices.

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<sup>26</sup> Shiyue Sun, *Zhongguo Jindai Nüzi Liuxueshi* (The History of Modern Chinese Women Studying Abroad), (Beijing: Zhongguo Heping Chubanshe, 1995), p. 148.

<sup>27</sup> Yichuan Zhou, 'Jindai Zhongguo Liuri Xuesheng Renshu Kaobian' (A Textual Research on the Number of Chinese Students Studying in Japan in Modern China), *Journal of Literature, history and philosophy*, 2(2008), pp. 104-12.

<sup>28</sup> Shan-ling Wei, 'Structural Analyses of Students Studying Abroad in the Early Republic (1912-1927)', *Journal of South China Agricultural University*, vol. 11, 2012, pp. 147.

The elites in the early 20<sup>th</sup> century often adopted a dichotomy to deal with Western culture's influence on China. On one hand, the 'modernity' and 'enlightenment-style progressivism' often recognised only the 'glamorous appearance' of the 'progress' of Western modernity, for example the *De Xiansheng* (德先生 Mr Democracy) and *Sai Xiansheng* (赛先生 Mr Science) identified by Chen Duxiu in the New Culture Movement.<sup>29</sup> When China's self-esteem was hit hard in the early 20th century the need to find ways to save the country from the West was very urgent. Nevertheless, if Chinese reformers equated the West with "progress", they could fail to consider whether or not the Western systems, technologies and knowledge were suitable for China's social environment.<sup>30</sup> On the other hand, other reformers, especially those who were guided by Marxism, adopted a fierce resistance and rejection attitude towards 'predatory imperialism'.<sup>31</sup> Both extreme attitudes also brought the relationship between the West and the Chinese into the relationship between progress and backwardness, or perpetrators and victim. This dichotomy is an act of laziness in understanding Western culture's complexity, ignoring that each place should have its own

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<sup>29</sup> Chen Duxiu, 'Ben Zhi Zuian Dabianshu' (本志罪案签辩书), *Xin Qingnian*, (新青年 New Youth), vol. 6, 1 (1919).

<sup>30</sup> Angela Ki Che Leung, 'Yiliaoshi yu Zhongguo 'Xiandaixing' Wenti', (医疗史与中国'现代性'问题 History of Medicine and China's Modernity), in Xinzhong Yu, Lihong Du, *Yiliao, Shehui, Wenhua Duben*, (医疗、社会与文化读本 Medicine, Society and Culture Reader), (Beijing: Beijing Daxue Chubanshe, 2013), pp. 109-131.

<sup>31</sup> Zhiping Chen, 'Ershi Shiji Zhongguo Lishixue de Sanda Qingjie', (20 世纪中国历史学的三大情节 Three Complexes of Chinese Historians in the 20<sup>th</sup> Century), *Journal of Xiamen University (Arts&Social Sciences)*, 4 (2001), pp. 38-45.



unique 'modernity' in each era.<sup>32</sup> Therefore, when studying the interaction between cultures, scholars should avoid putting the West and the Chinese, on behalf of all cultures, outside and inside China. Therefore, the West used in this dissertation is placed in the context of the time or quoted from the materials at the time. In this case the indigenous or the local are more suitable terms to refer to the culture that already existed in Shanghai.

### **Western medicine and Chinese medicine**

In relation to Western medicine and Chinese medicine, and the Western doctors and the Chinese doctors, different medical groups had different understandings during the Republican period. With the *Xixue Dongjian* (西学东渐 the eastward transmission of Western sciences) Chinese doctors who returned from 'Western' medical institutions abroad had appeared in the Chinese medical field. As they were different to the prevalent theories and techniques in Chinese society, they were called *xishi yisheng* (西式医生 Western-style doctors) or *xiyi* (西医 Western doctors) for short. Correspondingly, doctors who practiced traditional medical theories and techniques were called *zhongshi yisheng* (中式医生 'Chinese-style doctors')

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<sup>32</sup> Ibrahim Kaya, 'Modernity, Openness, Interpretation: A Perspective on Multiple Modernities', *Social Science Information*, 1(2004), pp. 49-50.

or *zhongyi* (中医 Chinese doctors) by contemporaries and, since then, by historians.

However, these doctors had different perceptions of their own identity. On one hand, some ‘Western doctors’ thought the technology they used was not limited to what they had learned abroad, so they called themselves *xinyi* ‘新医 new doctors’. Some doctors who had returned from studying in Germany or had graduated from a German-style teaching medical school in Shanghai called themselves *deyi* ‘德医 German doctors’, in order to demonstrate what they perceived as the superiority of German medical technology. On the other hand, many ‘Chinese medicine’ practitioners also used foreign medical knowledge and equipment in their clinics, while they advertised the orthodox position of their original traditional knowledge. Therefore, they called themselves *guoyi* (国医 national doctor). However, doctors’ titles in the Republic of China were complicated and they could not be generalised as Western or Chinese doctors. Although this dissertation bears this nuance in mind, when analysing contemporary literature it follows the people’s usage habits at the time.

### **The Medical Profession (专业) and Professionalisation (专业化)**

A. M. Carr-Saunders explains the term ‘profession’ as a group of people engaged in a profession that requires specialised skills. A profession requires intelligence to cultivate and complete, and its purpose is to provide specialised services.<sup>33</sup> The essential attributes of professions recognised by sociologists include full-time occupation, a scientific knowledge base, serving the public’s needs, a relatively standardised professional organisation, the emergence of a market monopoly and a high degree of autonomy.<sup>34</sup> Reaching these standards usually requires going through a long process, and this process is ‘professionalisation’.

In Republican China Chinese doctors trained in the Western medical system began to entitle themselves as *yishi* ‘医师 physician’. They referred to themselves, as lawyers and accountants did, as a *poruofeixing* (泼若费兴 – a transliteration of profession) or as a freelance group.

In May 1929 the Central Legislative Affairs Commission of the Republic of China discussed the legislation of freelance organisations in a meeting. This may have been the first time ‘freelancers’ had appeared in official

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<sup>33</sup> A.M. Carr-Saunders and P. A. Wilson, *The Professions*, (Oxford: Clarendon Press, 1933), pp. 265-70.

<sup>34</sup> Kang Zhao, ‘Zhuanye, Zhuanye Shuxing ji Panduan Chengshu Zhuanye de Liutiao Biaozhun--Yige Shehuixue Jiaodu de Fenxi’, (专业、专业属性及判断成熟专业的六条标准——一个社会学角度的分析 Majors, Professional Attributes and the Six Criteria for Judging Mature Majors-An Analysis from a Sociological Perspective), *Shehuixue Yanjiu* (社会学研究), 5 (2000), pp32-41.

documents.<sup>35</sup> As far as the physicians were concerned, they clearly understood their professional characteristics and had begun to pursue a higher social status, professional authority and monopoly on knowledge.<sup>36</sup>

When analysing the process of the emerging and developing of the medical 'profession', most authors have tacitly accepted that the Western ways and things equal modern and professional and are used to measure progress and advancement. Therefore, one of the most common judgment criteria for the level of professionalism is the number of doctors who practiced using Western medicine.

In taking Yang Xiangyin and Wei Huan's article about the National Medical Association of China (NMAC) and the process of professionalisation as an example, the author spoke highly of the former's effort in putting the government under pressure to relax the censorship regulations of a qualified doctor with the purpose of maximising the 'professional' team.<sup>37</sup> In this case the author intentionally parried the question of whether relaxing the censorship might not help with the consolidation of market order, which was why the government conducted the assessment. The lack of a precise

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<sup>35</sup> *Lifayuan Gongyuan* (立法院公报 Bulletin of the Legislative Yuan), published by the Legislative Yuan Secretariat, 6(1928), p. 26.

<sup>36</sup> Qian Yin, *Minguo Shiqi de Yishi Qunti Yanjiu (1927-1937)*, (民国时期的医师群体研究 Research on the Physician Group in the Period of the Republic of China), (Beijing: Zhongguo Kexue Chubanshe), pp. 11-6.

<sup>37</sup> Yang Xiangyin, Wei Huan, 'The National Medical Association of China and the Process of Profession', *Social Science Journal*, 5 (2014), pp. 155-61.

standard of professionalisation preoccupied Xu Xiaoqun, who focused on various professional workers in the same period.<sup>38</sup>

Foreign physician groups were also striving for the right to speak while promoting medical specialisation. The China Medical Missionary Association (中国教会医学联合会/博医会) was one of the representative achievements of foreign doctors in promoting the localisation and professionalisation of Western medicine.<sup>39</sup> In the Chinese Medical Association regulations for its membership, the minimum standard for the certification of professional physicians stated that 'any doctor of any nationality who graduated from a regular medical school, has a certificate, and serves the church organization may be a member.'<sup>40</sup> In addition, the Chinese Medical Association did some work on behalf of the government when the Chinese medical and health institutions were not sound. For example, in 1911 a plague occurred in the Northeast and the Ministry of Foreign Affairs planned to recruit church doctors to work there. The Shanghai Medical Association carried out this recruitment.<sup>41</sup> On one hand this demonstrates that the authority and the

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<sup>38</sup> Xiaoqun Xu, *Chinese Profession and the Republican State: The Rise of Professional Associations in Shanghai, 1912—1937* (Cambridge: Cambridge University Press, 2001).

<sup>39</sup> Xiangyin Yang, Huan Wei, 'Zhonghua Yixuehui yu Minguo Shiqi Xiyi Zhiyehua' (The Chinese Medical Association and the Professionalisation of Western Doctors in the Period of the Republic of China), *Shehui Kexue Jikan* (Social Science Journal), 5 (2014), pp. 155-61.

<sup>40</sup> Tietao Deng, Zhifan Cheng, ed., *Zhongguo Yixue Tongshi- Jindaijuan* (Chinese Medical History), (Beijing: Renmin Weisheng Chubanshe, 2000), p. 523.

<sup>41</sup> 'Waiwubu Zhaopin Yiyuan Chuyi'(The Ministry of Foreign Affairs Recruits Medical Staff to Eliminate the Epidemic), *Shenbao*, 1911.02.06.

professionalism of the association itself were recognised. On the other hand at the beginning of the 20th century the Chinese Medical Association also unified medical terms on behalf of the government, which played a fundamental role in the cooperation and professionalisation of Western medical workers of different nationalities.<sup>42</sup>

However, whilst the medical systems of various countries were moving towards integration to establish an authoritative position for Western medicine as a whole, there was also increasingly fierce competition among them. This was especially so in Shanghai, as the colonial forces and church activities in the international concessions had existed for a long time, and the contests between the medical forces of multiple Western countries' factions were all crucial for this country to seize China's emerging Western medicine market.

For example, the Shanghai Southeast Medical College was founded by medical students studying in Japan at the Japanese-Chinese Tongrenhui Hospital (日华同仁会医院) and its affiliated schools. As the teaching and practice style of these schools belong to the Japanese system the graduates were deemed to have studied Japanese-style western medicine. The medical

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<sup>42</sup> Wanfu Xi, 'Guomin Zhengfu Shiqi de Xiyijie Neibu de Paoxi Jiuge' (Factional Entanglements within the Western Medicine Circle during the Nationalist Government), *Lantai Shijie*, 1 (2014), pp. 81-2.

students of Tongji University School of Medicine and Zhongshan University School of Medicine were regarded as studying German Western Medicine. Because of the inheritance of the medical education system in Japan and Germany, it could sometimes be collectively referred to as German-Japanese Western medicine. The graduates of Zhendan University belong to the French faction. In contrast, the mission hospitals and medical schools established by medical missionaries run by British and American funders in Shanghai, such as the Shanghai St. John's Medical School, belong to the Anglo-American faction.<sup>43</sup> Business competition and the support of foreign governments behind these factions made it difficult for the Western medical community to unite to promote professional standards.

Another factor that made it difficult to access a degree of professionalisation is the appropriation of foreign technology. The process of appropriation could not be avoided when anything foreign came to a new context. It was often transformed to fit in with local culture and circumstances. In this case the appropriation of medical products can be measured in terms of their import origins. By comparing the usage of the same product in the place of origin and in Shanghai and the users' background in both places, it is possible to analyse the changing social

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<sup>43</sup> Xiangyin Yang, Huan Wei, *Zhonghua Yixuehui yu Minguo Shiqi Xiyi Zhiyehua*, p. 156.

meanings of certain equipment and the changes brought by it. An example of appropriation is that, in the earlier period when Western practitioners (mostly missionaries) first came to China, there were endemic diseases that were not common in the West. In such cases consulting the existing local therapies was a shortcut for pharmacy. Up until now the combination of Western and Chinese medicine is an important subject in medical schools and hospitals.

Among all the works on medical workers' lives and their construction Yin's study of medical practitioners is one of the most comprehensive and systemic, epitomising all the main topics and every aspect of the interaction between medical practitioners and other social categories, such as patients, associations and the government. The author's account of those practitioners' everyday lives is the highlight of her book. For example, she explored their social activities of circulation and entertainment to build a connection with other practitioners, manufacturers, patients and scholars for a valuable 'network circle'.<sup>44</sup> However, medical practitioners here were always wearing their working clothes, and showing their professional and intellectual side, rather than being a social group living as ordinary people doing a certain job.

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<sup>44</sup> Yin Qian, *Study on Medical Practitioners in the Period of the Republic of China (1912-1937)* (Beijing: China Social Sciences Press, 2013).



To sum up, the concept of professionalisation does not have a precise definition or description. It could be seen as propaganda for the self-glorification of professional doctors and surgeons or an account of characteristics of what those workers' lives should be like to distinguish themselves from the old.

The main reason for studying medical practitioners in this dissertation is their very close connection with medical instruments and the practice of medicine. They are one of the first to gain access to and apply the medical materials and have an important role in selecting and introducing the products. Furthermore, some of the medical practitioners were tied up to the pharmaceutical industry. It would be worthy to further develop the factors that influenced their attitudes towards different medical materials, for example their factions, financial ability, profit and their employers' requirements. Regarding discussion of specialisation, this dissertation aims to measure the level and characteristics of specialisation when investigating the reforms of midwives in Chapter 4.

### **Literature View**

This section divides the relevant literature into two categories: literature on the interdisciplinary of history of medicine and material culture and

literature on Shanghai's history of the spread and adoption of 'Modern' medical equipment.

The literature review examines the existing literature and how it connects to my dissertation. The connection includes 'gaps' I can fill, 'fields' I will develop, sources that will be made better use of and opinions that I disagree with. According to the different fields involved, I will divide all relevant secondary sources into four main parts: interpretation and comparison of the philosophies and developing levels of Chinese and Western medicine at the beginning of the twentieth century; discussions of the formation and development of a new profession of Chinese Western-style doctors as the main users of medical instruments in China; literature evaluating the growing volume of medical periodicals as a cultural feature that instruct the use of or rejection of those materials for readers in all literate classes; and studies of the pharmaceutical factory as an agent in producing, interpreting, selecting and recreating medical products reflecting the local demand and the development of commerce. My research will pay consistent attention to the participation of ordinary people and the appropriation of the foreign.

Knowledge of the philosophies and the development of medicine in the Chinese and Western culture is required when starting with what it was like

when Western medicine first came to China. For instance, in the early 19th century, when medical missionaries introduced their medicine and equipment to China, this was not viewed as a well-developed system when compared with Chinese traditional medicine and practice. However, in 1914, the traditional medicine was condemned by the Minister of Education in China.<sup>45</sup> This shows that, on one hand, Western medicine had been rapidly developing, in order that it could provide a scientific cogent analysis and survive the debate. On the other hand, the context and trends must be considered to explain why this 'unfamiliar' subject remains ubiquitous up until now. Moreover, having an idea of both kinds of medicine will help to gain an understanding and interpret the original design and the later changes to the equipment.

To discuss the formation and development of a new profession of Chinese Western-style doctors involves discussing the relationship between the doctors and patients, as well as the divisions and cooperation among the doctors. When new Western terms and equipment were created, there was a process of translation when they were brought into China. According to Paul Unschuld, who works on the interpretation and translation of traditional Chinese medicine, systems of medical ethics were devised as

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<sup>45</sup> Barbara Evans, 'Review of *Medicine in China: A History of Ideas*', *The Journal of the Royal Asiatic Society of Great Britain and Ireland* by Paul U. Unschuld, (1986), pp. 316-17.

mechanisms for enhancing the prestige of the physician.<sup>46</sup> Similarly, the translation of terms is not only the very typical case that one culture tried to appropriate from another, but is also an opportunity to exert an influence on the relationship between doctors and patients. Another sign of professionalisation is the increasing quality and quantity of Chinese doctors trained in the Western education system. Some doctors came back from countries such as Japan and Germany, and some were trained in local medical schools. As a result, there were factions and different organisations, leading to different forms of treatment and different types of equipment.

Thirdly, medical products as goods have played an important part in connecting the development of modern science with consumers. Those products caused cultural changes, such as changing people's attitudes towards foreign goods. Pharmaceutical and hospital records provide records about purchasing patterns, users' reviews and updates on products.

Finally, the newly emerging types of media will be investigated, as they tended to target a wider audience. The study of media has mainly focused on periodicals, which, indeed, were the most influential and widespread medium in Shanghai. The interaction between professionals and readers,

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<sup>46</sup> Martha Li Chiu, 'Review of *Medical Ethics in Imperial China* by Paul U. Unschuld', *Journal of the American Oriental Society*, vol. 103, No. 2 (1983), pp. 466-467.

advertisements for medical products and publicity of medical policies all reveal changing attitudes towards medical instruments. Other media, such as radio, movies, slogans on the wall and a visit to the factory, all helped to make the policies, products and health consciousness reach as many ordinary people as possible. Regarding children, school education was the main way for them to learn about healthy lifestyles. However, there remains little literature focusing on media, apart from periodicals, which enable me to fill the gap with primary sources from local cultural, health and educational departments.

### **An Overview of Literature on the Interdisciplinary of the History of Medicine and Material Culture**

The study of material culture in the history of medicine is an interdisciplinary field combining the history of medicine, cultural history and material culture. Historians have long included medicine in their research and then gradually enriched its meaning according to particular complex cultural and social contexts. Early discussions of medicine and its history were undertaken by physicians with enthusiasm for the ancient doctrines and wisdom passed down by their greatest predecessors, and were subsequently written into

textbooks as required learning for medical students.<sup>47</sup> From the seventeenth century to the nineteenth century the narrative of the history of medicine was mainly presented with facts and medical knowledge in chronological order in a positivist fashion. However, in the late eighteenth century medical historians began to express opinions on the progress of medicine and the interpretation of classical medicine.<sup>48</sup> Under the influence of the Industrial Revolution medicine started to follow certain scientific standards by encouraging observation and experiments. It was social historians working in the latter half of the twentieth century who turned their attention to medicine in the 1920s. They realised that, with the idolisation of new innovations and 'advanced' technology, moral issues and patients' needs tended to be ignored by both scientists and historians. This exposed an absence of social criticism, which could easily lead to inappropriate use of medicine. Therefore, the role of patients was taken into account in the history of medicine. One of the most influential and illuminating methods was elaborated on systematically by Roy Porter, in that the history of medicine should be studied from the patients' perspective rather than telling doctors' stories, by doctors and for doctors.<sup>49</sup>

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<sup>47</sup> Zhao Xiurong, 'An Introduction to the Studies in Medical History of the UK and the USA', *Journal of Historical Science*, 6 (2007), pp. 117-125.

<sup>48</sup> William Henry Williams, *A Concise Treatise on the Progress Of Medicine since the year 1573* (Ipswich: J. Bush, 1804).

<sup>49</sup> Roy Porter, 'The Patient's View: Doing Medical History From Below', *Theory and Society*, 14 (1985), pp. 175-98.

Social historians took a further step by questioning the sociological category of the medical 'profession', showing that medical practitioners moved in and out of medical work, for instance doubling up as grocers or salespersons.<sup>50</sup> This tendency of investigating ordinary people and their daily lives was also having an effect on cultural history in the late 1970s and 1980s. The core of cultural history is its attention to the making of meaning, for instance how people make sense of their lives, of the natural world, of social relations and of their bodies.<sup>51</sup> Therefore, from this period cultural historians have been rethinking the meanings from the perspective of ordinary people rather than of the social elites. This was the moment, according to Donald Kelly, when the history of high culture became 'old' and shifted to 'the new cultural history'.<sup>52</sup>

A recent exemplary case study was on Construments sets, a series of playful and educational toys containing standardised components designed for children to build their own optical instruments, in Interwar Britain. Melanie Keen showed an interdisciplinary approach to material culture, scientific education and commercial history, taking account of both elites and ordinary

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<sup>50</sup> Margaret Pelling, 'Medical practice in early modern England: trade or profession?' in Wilfred Prest, ed., *The Professions in Early Modern England* (London: Croom Helm, 1987), pp. 90-128.

<sup>51</sup> Mary Fissell, 'Making Meaning from the Margins: The New Cultural History of Medicine', *Locating Medical History: The Stories and their Meanings* (Baltimore: Johns Hopkins University Press), pp. 364-89.

<sup>52</sup> Donald Kelley, 'The Old Cultural History', *History of the Human Science*, 9 (1996), pp.101-126.

children, as well as the complex context of the interwar period.<sup>53</sup> Keene's paper is very inspiring for my research in three ways. First, at a time when science is investigated in the laboratories and argued through academic periodicals, progress is also being made with general science being introduced to more ordinary people. It has been proved that there is often an intimate connection between scientists and common people, even children. This connection is not only maintained for educational and commercial purposes, but also exists within heterogeneous communities for people from various backgrounds sharing the same interest to pass on skills and knowledge to each other. Although discussions on professional organisations have long existed, the existence of such extensive communities in China is worth investigating. Second, just as the Construments were promoted targeting children, there were similarly hygienic items and habits in the Republican period being recommended to children by primary and middle schools, whether spontaneously or in response to the government's health projects. Habits of a lifetime might not easily be given up by adults, but new ideas could be more readily taught to the younger generation. The promoting methods, literature styles, design of products and responses from those younger users could be very different from those of adults. Third, this essay located the creation, development and decay of the Construments in

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<sup>53</sup> Melanie Keene, 'Every Boy & Girl a Scientist: Instruments for Children in Interwar Britain', *ISIS*, 98 (2007), pp. 266-289.



the context of Interwar Britain. For example, they were founded partly to address characteristic Interwar concerns about adaptability and economy and licensed a degree of creativity advocated by contemporary education. Republican China was also experiencing warfare, cultural upheaval and several outbreaks of epidemics, all of which could have an influence on which, and how, certain medical products would stand out in people's lives.

Lynn Hunt identified 'the disease' and 'the body' as two main areas of the cultural history of medicine in a collection of papers named *The New Cultural History*.<sup>54</sup> However, it was Charles Rosenberg who offered a systemic cultural model, 'framing disease', to describe the process of situating a disease within cultural boundaries. This process includes people's perceiving, naming and responding to a disease.<sup>55</sup> The papers in this book supported and applied Rosenberg's model with various case studies, proving that the framing of disease has a cultural impact on medical knowledge, medical institutions, public policy and people's behaviour.<sup>56</sup>

Lynn Hunt's suggestion of summarising the content of the cultural history of medicine as the sociology of disease and the history of the body indeed

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<sup>54</sup> Lynn Hunt, *The New Cultural History*, (Berkeley: University of California Press, 1984).

<sup>55</sup> Charles E. Rosenberg and Janet Golden, eds, *Framing Disease: Studies in Cultural History* (New Brunswick, N.J.: Rutgers University Press, 1992).

<sup>56</sup> Kathleen W. Jones, 'Review: Framing Disease: Studies in Cultural History', *The Journal of Interdisciplinary History*, 25 (1994), pp. 322-324.

provided a broader, but unambiguous, insight for historians. However, it has more or less restricted researchers' imagination of other possibilities, the most important of which is the material side concerning medical work, including medical instruments, medicines and hygienic commodities. *Science Incarnate: Historical Embodiments of Natural Knowledge* is an entertaining masterpiece in the history of science. The editors and contributors attempted to draw readers' attention to the overlooked scientific body by revealing details of the corporeality of notable natural philosophers and mathematicians. For instance, in Rob Iliffe's chapter on Newton, the author pointed out that Newton's endeavour was not a purely intellectual enterprise, but also a process of fame-construction as a public figure.<sup>57</sup> Lawrence contributed to the history of medicine and discussed the physical stereotypes traditionally ascribed to physicians and surgeons. Their image used to be thin, intellectual and robust, created to build up an impression of professionalism for patients to trust and look up to. A similar development in Republican China was the responses from Western practitioners questioned by supporters of Chinese traditional medicine. One solution was to establish the reputation of Western medicine as a component part of authoritative modern science. Apparatus could also create an intended atmosphere, for

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<sup>57</sup> Christopher Lawrence and Steven Shapin, eds, *Science Incarnate: Historical Embodiments of Natural Knowledge* (Chicago: University of Chicago Press, 1998).

example the stethoscope around a doctor's neck, the microscope on a biologist's desk or a tube in a chemist's hand. Scientific objects themselves also embody various meanings, such as professional, high-tech or foreign.

In other circumstances such objects were not only part of the response to certain diseases, but also a symbol and embodiment of hygiene consciousness. Although not included in Hunt's system, the significant role of medical objects has been affirmed by several historians. A very successful case study combining 'disease', 'the protection of a healthy body' and 'materials for prevention and treatment' was Sean Hsiang-lin Lei's exploration of the framing of tuberculosis and its material solutions, such as Chinese hygiene tables (the circular, rotating tray set on dining tables), family sleeping platforms (kang) and the introduction of individual cups, as opposed to the patriarchal Chinese family contributing to the process of habituating individuality. Those materials were given an abstract meaning of hygiene and gradually became part of people's habits and the commodity industry.<sup>58</sup> Lei's article set up a promising research direction of exploring the revolutions of hygienic commodities and habits in everyday life and health education for children. Most importantly the author connected the elites who designed and promoted hygienic items and policies with ordinary

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<sup>58</sup> Sean Hsiang-lin Lei, 'Habituating Individuality: The Framing of Tuberculosis and Its Material Solutions in Republican China', *Bulletin of the History of Medicine*, 84 (2010), pp. 248-279.

people's life styles. Furthermore, there is still plenty of blank space awaiting scholars to occupy, for example different attitudes and spreading speed between urban and rural areas, due to such factors as price, transportation and education, regarding whether or not their effect to the prevention of diseases met the initial purpose.

Frank Dikötter's 'A Cultural History of the Syringe in Modern China' filled a part of the gap between medical equipment and the building of public health.<sup>59</sup> Focusing on the history of the syringe from its first appearance in China, the article discussed much about China's needle culture, from the use of syringes and morphine to the utilisation of a narcotic culture in general for medical use. His research provided a profound study of the cultural adaptation in China when syringes first became popular and the factors that contributed to the successful enculturation of the hypodermic needle in China. Dikötter's collaboration with Lars Laamann and Zhou Xun on narcotic culture in China also discussed the great attraction the hypodermic needle and syringe had for the Chinese, while causing fears of the same equipment among Westerners. Both outstanding studies argued that the importation of drugs did not become a problem until the Chinese government suppressed their use. Their in-depth investigations provided a reflection of imperialism

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<sup>59</sup> Frank Dikötter, 'A Cultural History of the Syringe', *Twentieth-Century China*, (28) 2002, pp. 37-56.

and set an example for research on things in daily life.<sup>60</sup> One section connected the popularity of syringes with the mass vaccine injection movements. According to their analysis, the syringe needles were taken as a continuation of the acupuncture tradition, thereby reducing people's fear of syringes. However, injection and acupuncture are based on very different medical principles and performed differently on bodies despite the similarities. Furthermore, these authors did not, explore the connection between syringes and the wider category of foreign medical equipment, which leaves room for further studies on the history of medical materials and its interaction with hygienic modernity in a large frame.

Although historians increasingly stress physical materials as a useful component and a valuable additional insight to their research, the role played by material culture in shaping social life and embodying knowledge has been somewhat overlooked. According to the literature on material culture so far, there are two basic and well-established approaches to learning about physical things and their various implications for our understanding of history: one is 'object-centred' and the other is 'object-driven'.<sup>61</sup> The distinction was made by Bernard Herman in *The Stolen House*,

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<sup>60</sup> Frank Dikötter, Lars Laamann, Zhou Xun, *Narcotic Culture: A History of Drugs in China*, (Chicago: University of Chicago Press, 2004).

<sup>61</sup> Karen Harvey, 'Introduction: Practical Matters', *History and Material Culture*, edited by Karen Harvey (London: Routledge, 2009), pp. 1-23.

one of his many studies of material culture. The object-centred approach tends to focus closely on physical attributes and aesthetic qualities (matters of taste) and is used mostly by archaeologists and connoisseurs.<sup>62</sup> While this approach is somewhat dated, I will adapt it to describe the objects on which I focus in detail. Object-driven studies regard 'objects as evidence of other complex social relationships.'<sup>63</sup> Herman suggests that the aim is to find out things about the people that made, used and lived with certain objects by using a variety of written sources, reaching a dense description and finding out the meanings around objects.<sup>64</sup> However, another key figure in this field, Henry Glassie, suggested that historians should take objects other than written work as texts to find their meanings in a certain context by examining the details of form, style, construction and materials.<sup>65</sup> My research will be largely object-driven, concerning the development of the types and functions of medical instruments and whether manufacturers' sales promotions matched their products' intrinsic characters.

Although both Glassie and Herman had different preferences when choosing supporting sources, both of them emphasised the same final aim of seeking the various meanings of things built by a myriad of shifting contexts and

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<sup>62</sup> Bernard L. Herman, *The Stolen House* (Charlottesville: University of Press of Virginia, 1992), pp. 11, 4.

<sup>63</sup> Bernard L. Herman, *The Stolen House*, pp. 11, 4.

<sup>64</sup> Bernard L. Herman, *The Stolen House*, p. 47.

<sup>65</sup> Henry Glassie, *Material Culture* (Bloomington: Indiana University Press, 1999), p. 48.

people's experiences. A successful case study and breakthrough in the field of Chinese history is reproducing the meanings of things and investigating the complex ways in which the meanings were embedded. An example of this is Frank Dikötter's work on foreign objects in Republican China. Dikötter underlined the ways in which Chinese people actively shaped the uses and meanings of foreign imports with Chinese culture and philosophy, which is the process of appropriation. In contrast to this, knowledge of medical science and the use of medical products enabled individuals to present themselves as modern citizens. For example, a trip to a Western hospital to be treated by advanced and expensive X-ray machines could be an opportunity to show off one's wealth and open-mindedness to other patients. Those methodologies and literature in the field of material culture will help to associate human-made objects with 'the values, ideas, attitudes, and assumptions of a particular community of society who commissioned, fabricated, purchased or used them.'<sup>66</sup>

Secondly, the emergence and engagement of modern hygienic systems and equipment is not only used to evaluate the scientific development, but is also often taken as a defining feature of modern politics and social life.

Medical materials can help us understand how people understood

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<sup>66</sup> Jules David Prown, 'The Truth of Material Culture: History or Fiction?', in Lubar and Kingery, eds, *History from Things: Essays on Material Culture* (Washington: Smithsonian Institution Press, 1993), p. 1.

modernity. Specific to China, medicine will be set as a representative research model when comparing Chinese and Western cultures, since before Western medicine was introduced in China, developed well-integrated medical systems with a sophisticated theoretical basis were preserved in a formal literary tradition.<sup>67</sup> Medical literature enables historians to explain the differences between Chinese and Western equipment for dealing with the same disease. The various Western medical objects were further developed and adapted after they were introduced to China according to local circumstances. The differences also existed in the same culture, due to the many educational systems that the equipment and their usages were brought from by the returned students. As a result, a comprehensive understanding of medical philosophies and the appropriation of a foreign culture can be revealed through careful analysis of medical equipment itself and how it was advertised, written about in scholarly journals, produced and sold.

Furthermore, the impact of new medical products on local society can be explored by observing who used medical objects and how they were discussed in popular and professional publications. The study of medical equipment can also provide material proof to help confirm, refine or

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<sup>67</sup> Ralph C. Croizier, 'Medicine, Modernization, and Cultural Crisis in China and India', *Comparative Studies in Society and History*, vol. 12, No. 3 (1970), pp. 276.



discredit the current understanding of social trends in this period. For example, the medical tradition was so deeply rooted in people's everyday lives that, when facing completely different Western medical systems, a new sense of nationalism developed. Consequently, traditional Chinese products, or even Western products produced by local factories, tended to highlight their hallmarks of national identity as a marketing strategy.<sup>68</sup>

One fundamental interdisciplinary achievement of history and material culture is the breadth of literature on the history of consumption. Since the landmark work *The Birth of a Consumer Society*, discussions of the 'consumer revolution' quickly have become dominated by stressing the power of consumers' choices on the economy and society.<sup>69</sup> Although those works provided deep thoughts of how consumption interacted with social changes, there remain some limitations due to a lack of discussion on the persistence of tradition. Also, when emphasising the dominating influence of consumer groups, the sources selected tended to neglect the poor. This majority group is often not represented. Though not well included in the history of

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<sup>68</sup> Ralph C. Croizier, Medicine, Modernization, and Cultural Crisis in China and India, *Comparative Studies in Society and History*, vol. 12, No. 3 (1970), pp. 277.

<sup>69</sup> Neil McKendrick, John Brewer and J.H.Plumb,*The Birth of a Consumer Society: The Commercialisation of Eighteenth-Century England* (London: Europa, 1982). Also see: John Brewer and Roy Porter,eds., *Consumption and the World of Goods* (London: Routledge, 1993); Ann Bermingham and John Brewer,eds, *The Consumption of Culture, 1600-1800: Image, Objects, Text* (London: Routledge, 1995); *John Brewer and Susan Staves, eds, Early Modern Conceptions of Property* (London: Routledge, 1995).

consumption, increasing attention to the poor and their everyday lives has led to a spurt of research into commodities.<sup>70</sup>

Chinese attitudes towards foreign things were sometimes misread as excessive resistance and arrogance.<sup>71</sup> Frank Dikötter takes a refreshing look at the 'modern things' that reached China from the later Qing dynasty and how they were adopted, adapted, reevaluated and disseminated until they were incorporated into daily life.<sup>72</sup> Research on local pharmaceutical companies with their enthusiasm and success in introducing and marketing foreign medical products would provide an opportunity to rethink the historiographical assumption of the allegedly pervasive Chinese xenophobia regarding Westerners and their technologies. Sherman Cochran showed how Chinese entrepreneurs evaded political boundaries and localised goods, and facilitated cultural homogenisation. In this way, local companies have been playing an essential part in the process of globalisation and localisation, and the rise of Chinese consumer culture.<sup>73</sup> Cochran emphasised their role as the agent mediating between elites and consumers, the West and the local, and

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<sup>70</sup> See Peter King's 'Pauper Inventories and the Material Lives of the Poor in the Eighteenth and Early Nineteenth Centuries', in Tim Hitchcock, Peter King and Pamela Sharpe, eds, *Chronicling Poverty: The Voices and Strategies of the English Poor, 1640-1840* (London: Longman, 1997), pp. 155-91; John Styles, *The Dress of the People: Everyday Fashion in Eighteenth-Century England* (New Haven: Yale University Press, 2007).

<sup>71</sup> Joshua Goldstein, 'Exotic Commodities: Modern Objects and Everyday Life in China by Frank Dikötter', *The Journal of Asian Studies*, 66 (2007), pp. 1112-1114.

<sup>72</sup> Frank Dikötter, *Things Modern: Material Culture and Everyday Life in China*, (London: Hurst & Company, 2007).

<sup>73</sup> Arielle Ann Rittersmith, 'Review of *Chinese medicine men: consumer culture in China and Southeast Asia* by Sherman Cochran', *The China Journal*, 58 (2007), pp. 177-179.

as innovations and traditions. On the other hand, consumers showed different interpretations of the products in accordance with their social position and educational background. Consumers' influence was mentioned but undeveloped. For instance how did their demands, their level of consumption and consuming philosophy affect entrepreneurs' selection of medical products and marketing strategies? Frank Dikötter's *Things Modern: Material Culture and Everyday Life in China* showed how the small and often severely constrained choices by the working class led to new commodities rapidly becoming part of the texture of everyday life. As a result, consumers' choices incrementally changed the material landscape of modern China.

This book examined every procedure a new product would go through, including the differences in attitude between various classes towards it. Unlike Cochran, Dikötter focused on the many changes of lifestyle at the lower rungs of society and the leadership of the elite or middle-class entrepreneurs.<sup>74</sup> On material culture, he argued that 'material modernity was not a set of givens imposed by foreigners but a repertoire of new opportunities, a kit of tools which could be flexibly appropriated in a variety of imaginative ways', which inspired researchers to re-examine the definition

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<sup>74</sup> Frank Dikötter, *Things Modern: Material Culture and Everyday Life in China* (London: C Hurst & Co Publishers Ltd, 2007), p. 1.

of modernity, especially in China.<sup>75</sup> This is a powerful approach to follow in my research of medical materials, which includes not just what the West insisted, or a simple view of rejection, but shows a kind of hybridization.

*The Shock of the Old*, by David Edgerton, investigated what happens when Western technologies are used in non-Western contexts and further explains his criticism of the view that there is a progressive path in the history of technology signposted by revolutionary inventions.<sup>76</sup> From the beginning of his research of each case, Edgerton focused on how technologies are used, rather than how they were invented and who were the inventors, because when they were first created, they might not be known and result in impact immediately. For my topic, for example, Edgerton would put more emphasis on how Western instruments were used by both Chinese and Western practitioners, whether following the previous experiences in the West or making some changes according to the types of local diseases, economic ability or, on the contrary, a completely misunderstanding of the objects' original functions. To be more specific, Edgerton's work provided three helpful suggestions for my research, as follows. First, it should be admitted that the global disparities will be long existing despite the process of globalisation. Although the relatively poor nations are not becoming rich

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<sup>75</sup> Dikötter, *Things Modern*, p. 7.

<sup>76</sup> David Edgerton, *The Shock of the Old: Technology and Global History since 1900* (London: Profile Books, 2007).

immediately, they have their own technological products to fulfil people's needs and hopes of a better life. Second, when it comes to things frequently seen in everyday life, such as sewing machines, bicycles and paper clips, he claimed that they were far more significant than many conventional landmark achievements, such as spacecraft.<sup>77</sup> Third, an anti-heroic theme is shown in Edgerton's theories, not only in his positive attitude towards common things, but also in his respect for old things that were found to be significant and were adapted in certain social environments to fit new requirements, which makes it achievable for researchers to connect objects with big events and social revolutions. Edgerton's philosophy was called 'use-based history' by Patricia Fara, due to his preference for the influence or usefulness of objects. However, this 'use-based history' is more likely to be 'social changes based history'. Although the invention or importing of a product might be unconscious or occasional, a large number of items are introduced to make changes, especially when consumers' choices become vital to the market. The invention of those items is an equally important focus for the historian.

In this way, however, the definition of modernity seems more ambiguous. In *Everyday Modernity in China*, Madeleine Yue Dong, Joshua Goldstein and the

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<sup>77</sup> Patricia Fara, 'Review of *The Shock of the Old: Technology and Global History since 1900* by David Edgerton', *The British Journal for the History of Science*, 4 (2007), pp. 621-22.

other contributors to their volume discussed the creative concept of 'Alternative modernities'. This refers to trends that resemble Western modernity, but have a Chinese, Japanese, or other non-Western cultural style.<sup>78</sup> The editors, Madeleine Yue Dong and Joshua Goldstein, criticised that this phrase left the impression that there was still some 'original modernity' that began in the West and that other instances were somehow derivative copies. In short, the claim that the word 'modernity' must mean Western, or be derivative of the West, was not acceptable.<sup>79</sup> Furthermore, in some cases, foreign goods were most likely to be physically distributed, such as the introduction of potatoes. Thus, another question is whether or not 'modernity' exists in intangible cultural forms or in tangible material forms, or in both. Dikötter used enculturation to describe cultural and material changes that would enable foreign things to enter local life and influence the whole of society with fewer obstacles. Although Dikötter showed a positive attitude towards enculturation, cases of misuse of foreign things did exist, which could hardly be counted as part of modernity. The introduction of morphine would suit this situation. A majority of the population would use it as medicine rather than as a narcotic. Therefore, the action of elites, government and even companies should be taken into account to balance

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<sup>78</sup> Madeleine Yue Dong and Joshua Goldstein (eds), *Everyday Modernity in China* (Seattle: University of Washington Press, 2006).

<sup>79</sup> Dong and Goldstein, *Everyday Modernity in China*.

the overemphasis on ordinary people's decisions, which is under-appreciated in Dikötter's interpretation of modernity.

When facing the problem of what belongs to the 'modern' and the 'traditional' in China, Ruth Rogaski chose an analysis close to that in Edgerton's *The Shock of the Old*. Rather than looking only at the moment of colonial encounter bringing in all the foreign ways of hygiene, which may have caused the problem outlined above, she investigated those hygienic behaviours and concepts on a large scale. She showed that the Chinese concept of hygiene, *weisheng*, had long represented an ensemble of evolving health and lifestyle practices prior to the arrival of European conceptions of health. However, this concept was more likely to be a bodily regimen guiding a healthier way of life and wise individual choices. Thus, in the nineteenth century Chinese medicine was found to be not as effective as people had expected against plagues. When Western medicine arrived in China, Rogaski used a persuasive case study displaying the multiplicity of colonialism (including Japanese) and the disunity of colonial powers and of science to avoid the argument of whether or not 'Western medicine' was playing the part of a hero as a body of homogenous and uncontested knowledge compared with Chinese medicine. In this way, the problems, such as who is modern and whether or not modern means better, would be avoided, since

the most effective instruments to cure would stand out and gain applause regardless of their origin.

Nevertheless, one thing that cannot be avoided is that the contradiction between modern and tradition already existed and had caused intense public debate in the Republican period. The embodiment of 'modern' in Western things was only started by their supporters for business purposes, political ambition or good experience of using them after the colonial encounter. Thus the notion that West equals modern and developed could be explained as a long-lasting and on-going historical trend.

John Heilbron gives us a precise description of the spread of modern science from the perspective of the history of science:

'Modern' Science, begins in Europe in 1550, gathers momentum and coherence in the seventeenth and eighteenth centuries with the discovery that nature has law like properties capable of being formulated mathematically and tested experimentally, and spreads globally in the nineteenth and twentieth centuries as it spawns



professionalised specialties, develops powerful industrial and military applications, and acquires growing influence in society and culture.<sup>80</sup>

In conclusion, untapped potential for investigating Chinese material culture within the history of medicine exists in previous literature. First of all, a clear definition of ‘modern’ and ‘professional’ in the medical area is needed, especially against the complex background of Republican China. Regarding research methods, the model of ‘framing disease’ could be inspiring for analysing materials, the constructions of cultural meanings and society’s response. Moreover, pharmaceutical factories and periodicals provided different interpretations of new Western products while producing, representing and advertising them. The government also exerted an influence on the promotion of Western medicine. In this dissertation, I explore how these forces shaped ordinary people’s choices about what medical products to use and how to use them, and how a foreign product ended up in Chinese people’s lives with a local (Chinese) meaning.

## **An Overview of Shanghai’s Story for the Spread and Adoption of ‘Modern’**

### **Medical Equipment**

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<sup>80</sup> John. L. Heilbron, James Bartholomew, Jim Bennett, Frederic L. Holmes, Rachel Laudan, Giuliano Pacaldi (ed. ), *The Oxford Companion to the History of Modern Science* (Oxford: Oxford University Press, 2003), pp. 370-374.

In 1926, when the Shanghai Municipal Government was preparing for the establishment of the Health Bureau (卫生局), it invited physicians, such as Yu Yunxiu, Xu Naili, Song Wusheng, Zhu Qiluo, Zhou Junchang and Liu Zhigang, and local gentry to form a health committee to ‘plan the Shanghai Special City’ for all hygiene problems. After the Nationalists took over the city in 1927 the Central Health Commission (中央卫生委员会) began to operate as the national health administrative planning agency.<sup>81</sup> Participating in the construction of the health administration system were professionals with a background in ‘Western medicine’. The national medical and health administration emerged and improved in accordance with a mixture of the models and practices from foreign countries, such as German, Japan and the U.K., as well as foreign concessions in Shanghai. The administrative management of ‘traditional Chinese medicine’ had become a blind spot in managing the national government from its organisation to its functions.<sup>82</sup> Neither the Beijing government nor the Nanjing government incorporated ‘Chinese medicine’ into the national system to construct a modern country, but tried to re-establish a new medical system based on ‘Western medicine’.

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<sup>81</sup> (Zhongyang Weisheng Wei Yuanhui Diyici Huiyi Huibian), (中央卫生委员会第一次会议汇编 Compilation of the First Meeting of the Central Health Commission), (The Second Historical Archives of China 中国第二档案馆), 1-1929. On the administrative structures of Shanghai, see Christian Henriot, *Shanghai, 1927-1937: Municipal Power, Locality, and Modernization*, (Berkeley: University of California Press, 1993).

<sup>82</sup> Zhi Si, ‘Xiyao Wangguo Yusuan Biao’ (西药亡国预算表), *Yijie Chunqiu* (医界春秋), 13 (1927).

The modernity of China's public health system has been much studied by scholars. While 'traditional medicine' was a hot topic in the 1990s, Yip Ka-che broke new grounds in examining the emergence, organisation, development and influence of the 'modern' health system from 1928 to 1937. His book *Health and National Reconstruction in Nationalist China* revealed the establishment of central health institutions by the Nanjing government, despite the difficulties caused by a lack of funds, poverty and political divisions. In practices, Yip highlighted the contradiction between the health planning, with foreign assistance and guidance, such as the Rockefeller Foundation, and the requirements of the less-developed regions.<sup>83</sup>

Another representative study is Ruth Rogaski's *Hygienic Modernity*, which is mentioned above. Rogaski investigated Tianjin, the third largest city in China, which shares many similarities with Shanghai as a treaty port. She portrayed the role that the Japanese medical model played in China's implementation of public health reforms. She interpreted *weisheng* as 'hygienic modernity', which combines state agendas for national strength with the building of a healthy population.<sup>84</sup> Rogaski's approach shed much-needed light on the

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<sup>83</sup> Yip Ka-che, *Health and National Reconstruction in Nationalist China: The Development of Modern Health Services, 1928-1937*, (Ann Arbor: Association for Asian Studies, 1995).

<sup>84</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*, pp. 187-89.

small body of literature with a comprehensive case study on the construction of the public health system and the meaning of *weisheng*.

Both Yip and Rogaski's books showcased a reflection of the foreign influence on the government's ambition to build a modern country. More importantly, both scholars demonstrated the tension between the admiration for foreign models and the pursuit of nationalism. Echoing the approaches of the scholars mentioned above, one of my main goals in my research is to illustrate the deliberateness of the Shanghai government's promotion of 'Western medical equipment and practices' adapting to local needs, and whether the agenda made by the medical experts fulfilled the needs of the ordinary people.<sup>85</sup>

Although Yip and Rogaski constructed excellent templates for the study of public health systems and services, their achievements cannot be fully applied to research on Shanghai. The first reason is that their main discussion focused on the political structure, but failed to reflect people's hygiene awareness and treatment habits in the medical product market and consumer culture. Compared with Tianjin and other Chinese cities, Shanghai has closer cultural exchanges with different countries. In particular, the establishment of specific health administrations in the International

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<sup>85</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*.

settlement and French concession was half a century earlier than by the National Government.

Kerrie MacPherson made a convincing case on the creation of sanitary infrastructure by the Shanghai Municipal Council to tackle contagious diseases, which later served as a fundamental factor for the municipality's economic growth and social development. The author reiterated the social transformation of Shanghai brought by the extension of a system of public health.<sup>86</sup> A recent study of Isabella Jackson put forward the concept of 'transnational colonialism' to capture the complexity of colonialism in China. Her research examined the extensive work in the public health realm undertaken by the Municipal Council's Department of Public Health, primarily motivated by a desire to protect foreign health. She also showed, however, the limited effects these efforts had in reducing mortality rates in the increasingly densely populated International Settlement.<sup>87</sup> Both books provide an exemplary case study on how medical infrastructure had a concrete impact on the residents' everyday lives. To evaluate the effectiveness of the Shanghai government's health policies against the most threatening diseases, such as tuberculosis, I am inspired by the previous

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<sup>86</sup> Kerrie L. MacPherson, *A Wilderness of Marshes: the Origins of Public Health in Shanghai, 1843-1893*, (Hong Kong: Oxford University Press, 1987).

<sup>87</sup> Isabella Jackson, *Shaping Modern Shanghai: Colonialism in China's Global City*, pp. 164-202.

works to engage with statistics that can directly reflect the result. This thesis also aims to fill the gap in the study of the promotion of medical products from the Shanghai government and its impact on people's health as well as their perceptions concerning health and the West.

Furthermore, persuading people to trust these new imports that had little to do with the firmly rooted Chinese medicine tradition required not only encouraging policies, but also a receptive cultural environment.

Shanghai was the birthplace of the New Culture Movement from 1915 to 1923.<sup>88</sup> The major mission of advocates of the New Culture Movement was to advocate for science and democracy. The New Culture supporters showed great passion in introducing scientific knowledge through Western medicine and Western equipment. In doing so they embraced what they saw as a modern way of life. New Culture writers, such as Lu Xun, Chen Duxiu and Zhou Zuoren, advocated for scientific knowledge in their articles and periodicals.

In addition, Shanghai had the highest number of books, periodicals and newspapers, as well as the most developed advertising industry, in China. In

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<sup>88</sup> Hu Shi, 'The Chinese Renaissance', in Franz Schurmann and Orville Schell (eds), *Republican China: Nationalism, War, and the Rise of Communism, 1911-1949* (New York, 1967), pp. 52-62

1937, Shanghai published 86 per cent of all the books in China.<sup>89</sup> The publishers and advertisers perceived the popularisation of medical products as a way to increase profits for their publication and, as a result, were eager to take part in this aspect of the New Culture Movement. Medical equipment advertisements and medical knowledge columns were essential media for studying medical culture and urban culture. It should be noted that the readers of paper media were mainly intellectuals, but through the operation of marketing strategies, such as adding images and using plain language, its influence went beyond educated people. In taking *Shenbao* as an example, in 1931 the newspaper's national circulation was about 150,000, and circulation in Shanghai was about 86,000, as it claimed. It was already quite astonishing at the beginning stage of the newspaper. Therefore, medical content in the media is still very worthy of research, especially medical columns and medical periodicals.

Peter Bowler published a detailed survey of the world of science writing, including books, book series, newspaper articles and magazines, and their authors and publishers.<sup>90</sup> He aimed to demonstrate that popular science writing became a widespread practice among those early twentieth-century

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<sup>89</sup> Timothy B. Weston, 'Review of *Gutenberg in Shanghai: Chinese Print Capitalism, 1876-1937* by Christopher A Reed', *The China Journal*, 53 (2005), pp. 260-3.

<sup>90</sup> Peter J. Bowler, *Science for All: The Popularization of Science in Early Twentieth-Century Britain* (Chicago: University of Chicago Press, 2009).

scientists. Professional scientists, science correspondents and science-writers were classified as the three major groups of contributors. This textbook of literature research can be an exemplar when selecting information from the media. First of all, in consulting his wide range of investigative work and the development of the Chinese media, the primary sources should be focused on medical columns and medical periodicals. Also, radio and museum exhibitions were both rising methods of propaganda with low costs for the audience. Furthermore, when exploring each journal or magazine, Bowler suggested the commercial arena should be at the fore. The details could include prices and sales-figures, potential and actual readerships, publishers' and editors' input and motivations and the financial gains of authors.

Before the emergence of medical columns and medical periodicals in China, according to Wang Fansen, reading notes and letters were the two main methods to announce one's research findings.<sup>91</sup> The trend of writing academic papers was promoted by the debate on traditional and modern Chinese led by the New Youth in 1918.<sup>92</sup> In the following decades universities offered courses for paper writing and the students were soon bound by this

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<sup>91</sup> Luo Zhitian, *Ershi Shiji de Zhongguo: Xueshu yu Shehui (shixuejuan)* (Twentieth-century China: Scholarship and society) (Shandong: Renmin Chubanshe), pp. 7.

<sup>92</sup> Wang Jianwei, 'Professional Journals and the Innovation of History in the 1920's and 1930's', *Journal of Historical Science*, 1 (2008), pp. 116-24.



imperative task of writing. Until the 1930s, publishing papers in periodicals was prevalent, especially among young scholars, and was proof of academic attainment. Medical periodicals and columns were founded by individuals, associations, institutions and universities. The current literature that serves as a part of history of periodicals focuses on the changes of topics, quantity and quality, as well as the state of operation. Regarding their influence on culture and society, the two dominating themes are exploring plagues and debate about Chinese and Western medicine, but very few have connected material modernity with those periodicals' contribution. For instance, new medical products were promoted by advertisements, the regulations for medicine and equipment were made public and the appropriate usage of equipment was discussed in columns. Furthermore, the content on material in periodicals is instrumental for their survival. First, according to Wang, lack of funds was a major obstacle for the medial periodicals, while the charge for advertisements was very helpful to ease the financial pressure.<sup>93</sup> Another possible topic regarding this is the misleading nature of some advertisements, which might lead to loss of neutrality and, therefore, distrust by readers. Secondly, articles about items that were used in daily life could be easier to connect with and attract readers of various backgrounds,

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<sup>93</sup> Wang, 'Professional Journals and the Innovation of History in the 1920's and 1930's', pp. 116-24.

for example the making of self-made soap and recommendation for new feminine products.<sup>94</sup>

A common obstacle for studies on medical periodical is the relatively small number of readers, limiting how representative or influential they may be. On this point, consumer culture is worth exploring, in considering Shanghai's leading role in commercial activities.

As scholarly enthusiasm moved from politics to the material sphere of ordinary life, the mass media in republican Shanghai did attract both historians' and linguists' attention as a quickly rising industry, as well as cultural and political propaganda that could influence people's language and lifestyles. Lee Hsia Hsu Ting first provided a comprehensive demonstration of the political control of the press in Modern China from the late Qing to the end of the republican period.<sup>95</sup> Regarding newspapers, Sei Jeong Chin viewed the transformation of the Shanghai newspaper industry from 1937 as a process of nationalisation, by demonstrating the structural changes of the newspaper industry and the ownership changes of the newspapers.<sup>96</sup> Instead of governmental control, Rudolf stressed that the foreign community played

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<sup>94</sup> Shing-ting Lin, 'Scientific Menstruation': the Popularisation and Commodification of Female Hygiene in Republican China, 1910s-1930s', *Gender & History*, 25 (2013), pp. 294-316.

<sup>95</sup> Lee Hsia Hsu Ting, *Government Control of the Press in Modern China, 1900-1949*, (Cambridge: Harvard University Press, 1974).

<sup>96</sup> Sei Jeong Chin, 'The History Origins of the Nationalization of the Newspaper Industry in Modern China: A Case Study of the Shanghai Newspaper Industry, 1937-1953', *The China Review*, Vol.13, 2 (2013), pp. 1-34.

a vital role in the rising of the Chinese public sphere. He used *Shenbao*, one of the biggest newspapers in republican Shanghai, as a case study to demonstrate foreigners' role in the cultivation of an open Chinese public sphere.<sup>97</sup>

Broadcasting was also seen as a growing industry reaching into political and social mobilisation. Laura De Giorgi introduced the Nationalist Party's radio broadcasting policy as a case study in her research on communication technology and mass propaganda in Republican China.<sup>98</sup> From a different angle, Wang Ying revealed the interaction between broadcasting and social life by analysing the social functions of broadcasting and the political intentions behind its expansion.<sup>99</sup>

How exactly the policies affected people and made social changes through media had drawn the interest of linguists. Ian Keen stated that, by making moral judgment and commentary of community members, the public media has shown the power playing on emotions and sentiments.<sup>100</sup> Although only a small part mentioned usage of the Chinese language, his theory on media's

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<sup>97</sup> Rudolf G. Wagner, 'The Role of the Foreign Community in the Chinese Public Sphere', *The China Quarterly*, 12 (1995), pp. 423-43.

<sup>98</sup> Laura De Giorgi, 'Communication Technology and Mass Propaganda in Republican China- The Nationalist Party's Radio Broadcasting Policy and Organisation during the Nanjing Decade (1927-1937)', *European Journal of East Asian Studies*, 13 (2014), pp. 305-329.

<sup>99</sup> Wang Ying, *Shanghai Guangbo yu Shehui Shenghuo Hudong Jizhi Yanjiu (1927-1937)*, PhD thesis in 2007 of Huadong Shifan University.

<sup>100</sup> Ian Keen, 'The Language of Morality', *The Australian Journal of Anthropology*, 2015(26), pp. 332-48.

influence on morality enlightened my analysis on newspapers' market strategies of selling the non-traditional medical service to the ordinary Chinese. When taking a closer look at the Republican period, the linguists used the media as a tool to reveal how a certain political concept emerged in the Chinese culture. Lidia H. Liu explored the legitimation of the 'modern' and the 'West' in Chinese literary discourse and realised there are no hard and fast rules for introduction of a new idea in China. Each case must be taken individually with all factors impinging.<sup>101</sup> Case studies on individual concepts were published a few years later. For example, Xiaocai Feng analysed the rhetoric of political participation, such as 'citizenship'. The word 'citizen' was firstly introduced in *Shenbao* and then frequently appeared in official venues controlled by politicians. Unfortunately, neither this book nor other researchers' work has looked into the terms that might be introduced for commercial purpose and have a closer connection with average people.<sup>102</sup>

The research above on the media mainly focuses on the development of media itself and its connection with political events, the public sphere,

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<sup>101</sup> Lidia H. Liu, 'Translingual Practice: Literature, National Culture' and Translated Modernity-China, 1900-1937', *Harvard Journal of Asiatic Studies*, Vol. 58, 2 (1998), pp. 568-580.

<sup>102</sup> Xiaocai Feng, 'Counterfeiting Legitimacy: Reflections on the Usurpation of Popular Politics and the "Political Culture" of China, 1912-1949', *Frontiers of History in China*, 8 (2013), pp. 202-222. For study on 'citizenship', also see 'Changing Meanings of Citizenship in Modern China by Merle Goldman and Elizabeth J. Perry', *China Review International*: Vol.11, 1 (2004), pp. 95-102.

linguistic evolution and commercial activities. Nevertheless, material culture was barely mentioned and medical equipment, which was an important part of both the public medical market and public health, remains untouched within the study of media.

This dissertation, in Chapter 3, aims to fill these gaps by revealing the vital role of the mass media influencing people's understanding of medical products by publishing advertisements and participating in public health events.

Furthermore, my research will also focus on the non-consumer groups, for the reason that there were still a large number of people who could not afford or did not have the habit of purchasing medical products, and, thus, buying and selling were not the only ways medical materials spread. There were other ways that also helped to popularise medical products and health consciousness. One way was to introduce them to children and teenagers, who tended to lack spending power, through school education. This kind of effort could be found in school curricula, textbooks and teaching records, but has attracted little attention from researchers, either about the history of children, education or public health. Another way is to involve women who had great potential for making a contribution to the health system.

During the past few decades the modernisation of medicine and the role of women have been growing research topics in history. The innovation of childbirth technology has naturally hosted a disciplinary intersection for these two fields and, at the same time, it provides for an openness of women's discourse of their unique experiences. The women's liberation movement set off with women's awakening being ignited in many countries. The localisation of gynaecology, closely related to women's well-being, was an essential part of this movement. Worldwide the combination of childbirth technology and biological sciences occurred between the 18th and early 20th centuries. In the research of different scholars on this period the reform of childbirth technology was promoted by the women's liberation movement and impacted by immigration, race, caste, politics, professionalisation, urbanisation and commerce.<sup>103</sup> Meanwhile, problematic aspects such as the

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<sup>103</sup> Charlotte G. Borst discusses the transition of male physicians replacing female midwives as attendants in America. By investigating immigrants and first-generation Americans, she finds both ethnic background and the growing respect for educated professionals were affecting women's choice between female midwives and male physicians. As a result, physicians who did not impose foreign values and even shared similar cultural values became highly in demand. See Charlotte G. Borst, *Catching Babies: The Professionalization of Childbirth, 1870-1920* (Cambridge, MA: Harvard University Press, 1995). On the other hand, Judith Walzer Leavitt focuses on the experience of middle- and upper-class women in America from the eighteenth to the twentieth centuries. For these women, factors such as socioeconomic status and geographic location determined their autonomous rights in the birthing room. See Judith Walzer Leavitt, *Brought to Bed: Childbearing in America, 1750 to 1950*, (New York: Oxford University Press, 1986).

Adrian Wilson reveals how Tory and Whig's political conflicts brought obstetric tools such as the forceps and Vectis into public debates. Arguments over these instruments led to a compromise that women should make choices. While the informally trained female midwives were in danger of being replaced by male practitioners, pregnant women had benefited from their competition through actively making conscious choices. Meanwhile, a need for more female practitioners was raised. See Adrian Wilson, *The Making of Man-Midwifery: Childbirth in England, 1660-1770* (Cambridge, MA: Harvard University Press, 1995). Cecilia Van Hollen analyses in-depth the modernising process of reproductive practices, gender and biomedicine in South India, which is more comparable with Republican China. She reveals women's resistance to biomedical birth based on the discriminatory practices in medical services instead of conventional medicine itself. While the connections between new technologies and women's reproductive bodies are preached as the embodiment of modernity, women are ambivalent about this embodiment. In this case, women actively criticise their role of gender-, caste- and class-based subordination while accepting the biomedical instrument. Cecilia's vision draws academic attention to women's awareness of the hidden inequality among themselves during the

discriminatory use of eugenics brought by this reform process are by no means to be neglected.

The study of childbirth reform in China has concentrated on the leading roles of the government, intellectuals and medical professionals. Tina Philips Johnson is a vital scholar who contributed to the research on obstetrics' professionalisation and institutionalisation in China. She investigated the first obstetrics schools and government public health systems centred in Beijing in the early 20th century.<sup>104</sup> Johnson then expanded her vision to the modernisation of delivery technology in China and re-examined the semantics of modernisation, Westernisation and scientification in the Republic of China. She clarified that 'Western medicine' does not necessarily refer to medicine from the West. In the context of China at that time it should relate to 'modern medicine'. She used the terms 'modern midwife' and 'modern physician' to refer to those with systematic expertise in biomedical knowledge. Simultaneously, the term 'traditional midwife' refers to women with no scientific training who have relevant experience, whilst the term 'retrained traditional midwives' refers to 'traditional midwives' who received training organised by the government in the 1930s. She cautioned

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appropriation of new technology, behind the flourishing images of modern identity. See Cecilia Van Hollen, *Birth on the Threshold: Childbirth and Modernity in South India* (Berkeley and Los Angeles: University of California Press, 2003).

<sup>104</sup> Tina Phillips Johnson, 'Yang Chongrui and the First National Midwifery School: Childbirth Reform in Early Twentieth-Century China', *Asian Medicine* 4(2008), pp. 280-302.

against using the word 'traditional' to generalise all indigenous midwives. While those midwives were regarded as the government's primary reforming targets during the Republican period, their image shifted.<sup>105</sup> Johnson's clarification of the frequently ambiguous concepts of 'Western', 'traditional' and 'modern' in the Republican context fits in well with biomedicine's localisation. Therefore, these definitions will be applied in this chapter to address the complexity of the childbirth reform.

The most detailed research on childbirth hygiene in Shanghai came from Zhao Jing's *Jindai Shanghai de Fenmiao Weisheng, 1927-1949* (近代上海的分娩卫生研究 *Childbirth Hygiene in Modern Shanghai, 1927-1949*). Zhao Jing is a prominent pioneer researcher of modern Shanghai women's childbirth hygiene. By digging out and sorting many archives, newspapers, magazines and books, she carried out a comprehensive investigation of the birth and health administration, obstetric education, midwives and the medicalisation of childbirth in the Nationalists' Shanghai.<sup>106</sup> However, in considering the gaps between the Republican reformers' rhetoric and reality, while Chapter 5 refers to the valuable original data collected by Zhao Jing on

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<sup>105</sup> Tina Phillips Johnson, *Childbirth in Republican China: Delivering modernity*, (Lanham, MD: Lexington Books, 2011).

<sup>106</sup> Jing Zhao, *Jindai Shanghai de Fenmiao Weisheng (1927-1949)* (近代上海的分娩卫生研究 *Study on childbirth hygiene in modern Shanghai (1927-1949)*), (Shanghai: Shanghai Lexicographical Publishing House, 2015).



policies and medical staff's professionalisation, the focus here is on both the passive and the active roles of women regarding these changes.

Despite such prominent work on the modern midwifery movement and its pivotal place in filling the remarkable disjuncture between traditional and contemporary childbirth practices revolving around the professional and social interests of medical professional and intellectuals, the female perspective remains underresearched.

As one of the few scholars who focused on women's experiences and voices, Joan Judge's case study of *Funü shibao*, which recruited female readers as 'partners' and agents of the reform, discovered a 'parallel universe' where the everyday experiences of Chinese women related to marriage, childbirth, menstruation and revolution were captured in their own words. She also distinguished between the 'Republican Ladies', who were educators, reformers and activists, and the 'modern women' featured greatly in commercial magazines.<sup>107</sup> Although researchers of Republic of China publications are aware of the shortcomings of limited readership, leaving out the lives of the majority of illiterate civilians, the value of research of those

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<sup>107</sup> Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodical Press* (Berkeley: University of California Press, 2015). On women's participation in sharing their voice on their roles in the process of modernisation, see *Women and the Periodical Press in China's long twentieth century: A Space of Their Own*, edited by Michel Hocks, Joan Judge and Barbara Mittler, (Cambridge: Cambridge University Press, 2018). Joan Judge's other two published papers, 'Everydayness as a Critical Category of Gender Analysis: The Case of Funü shibao (The Women's Eastern Times)', *Jindai Zhongguo Funüshi Yanjiu*, 20 (2012), pp. 1-28; 'Sinology, Feminist History, and Everydayness in the Early Republican Periodical Press', *Signs*, vol. 40, no. 3 (2015), pp. 563-87.

'Republican Ladies', who created a female voice in public places in the field of gynaecology, is groundbreaking. Women began to participate in the process of becoming 'modern women' through their influence on childbirth reform under the complex background of nationalism, scientism and commercial propaganda. In referring to Judge's portrait of these female leaders, this chapter also pays attention to supplementing the consideration of ordinary families' choices and the fate of midwives, who were also women at the lower levels of society.

As the critical targets of childbirth reform, traditional midwives were often presented negatively as being ignorant during the Republican era. This negative image was neither born out of thin air nor was it precise. Scholars such as Charlotte Furth and Yi-Li Wu explored the complexity of midwives' capabilities in imperial China. Furth explained why, despite the widespread prejudice against low-status midwives, especially after the Ming Dynasty, female patients preferred them to male doctors.<sup>108</sup> Midwives were seen as one of the three categories of potentially dangerous outsider women who offered expertise to gentry households during childbirth, together with religious women and matchmakers, until the Republican period.<sup>109</sup> As Yi-Li

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<sup>108</sup> Charlotte Furth, *A Flourishing Yin: Gender in China's Medical History, 960-1665* (Berkeley: University of California Press, 1999), pp. 168-72.

<sup>109</sup> Johanna Ransmeier, 'Inside the Home, Outside the Family: Wet Nurses in Republican China', *Nannü*, 17(2015), pp. 276-308.

Wu concluded, childbirth in most times and societies had been a strictly female affair, while men maintained a distance from the messy business, in considering the pollution and distress it caused. Male experts may have been only summoned to prescribe drugs.<sup>110</sup> Both scholars' insights into the female and male roles during childbirth are important for this chapter's analysis of the inherent culture the 'modern childbirth' methods were facing and dismantling.

Simultaneously, Shanghai, with its well-developed cultural industry and medical market, became home to the most well known birth control promoters and medical experts.<sup>111</sup>

The literature on modern China's, particularly Shanghai's, birth control movement can be roughly divided into three types, namely the perspectives of elites, women and business. Many scholars have focused on intellectuals and professional groups who have put significant effort into translating, appropriating and disseminating birth control ideas and technologies. Sihh Kyu-hwan has been examining the advent of eugenics as a discourse to improve race since the late imperial period. Sihh distinguishes the different

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<sup>110</sup> Yi-Li Wu, *Reproducing Women: Medicine, Metaphor, and Childbirth in Later Imperial China* (Berkeley: University of California Press, 2010). Francesca Bray, 'Review of *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China*', *Eighteenth-Century Studies*, vol. 46, 1 (2012), pp. 155-157.

<sup>111</sup> Leon Antonio Rocha, 'A Small Business of Sexual Enlightenment: Zhang Jingsheng's "Beauty Bookshop"', *Shanghai 1927-1929*, *British Journal of Chinese Studies*, (2) 2019, pp. 1-30.

opinions of eugenicist and medical professionals. Eugenicists, such as Pan Guangdan, supported birth control as a way to select superior offspring and eliminate inferior people to fit in with their ideals. However, when physicians entered the debate in the 1930s the happiness of mothers and children and public health were taken into consideration.<sup>112</sup> Leon Antonio Rocha investigated the intellectuals of the New Culture period from the discourse of sex and human nature, viewing this was a panacea for China's weakness and perceived degeneracy. Rocha concluded that debates on contraceptive technologies, alongside the rules of dating and sexual activities, were connected with the drive to alter and 'fix' the understanding and practice of sex and, indeed, human nature.<sup>113</sup> Rocha's article marked a breakthrough in revealing sex discourse as the theoretical grounding for the individual liberation movement, which provided a potentially broader benefit to the birth control discussion. Whether or not this discourse has been continuously involved in the birth control practice requires further exploration. Rocha's research on Zhang Jingsheng, a key sexologist who opened a small business in Shanghai, offered an insight into the frustration such sexologists might have faced when enlightening the public.

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<sup>112</sup> SIHN Kyu-hwan, 'Eugenics Discourse and Racial Improvement in Republican China (1911-1949)', *Korean J Med Hist* 19, 12 (2010), pp. 459-486.

<sup>113</sup> Leon Antonio Rocha, 'Xing: The Discourse of Sex and Human Nature in Modern China', *Gender & History*, No. 3 (2010), pp. 603-628.

Bao Shufang is one of the early Chinese historians who noticed the development of birth control thoughts in China. Bao's Master's thesis explored and filled the existing research gap on views and policies that encouraged fertility in Chinese history and how those entrenched ideas interacted with the birth control movement, as well as the impacts of the birth control movement in China. However, although Bao's research is groundbreaking, it underestimated the role of Chinese women in birth control campaigns. He advocated that 'the gender that promoted the trend of birth control during the Republic of China was mainly men' and 'Chinese women did not actively pay attention to this trend of birth control. Their inactivity greatly reduced the effectiveness of the trend of birth control.'<sup>114</sup> Subsequent research explored how women participated in the birth control movement under the influence of ideological trends in several major cities in China. Yu Lianshi is a leading figure in the study of birth control health in Shanghai. Yu's work has addressed many aspects of women's liberation, from medical aspects, childbirth and marriage to education. Yu's paper 'On the Movement of Birth Control in a Republican City—Focus on Beijing, Shanghai and Nanjing' detailed the specific measures formulated by the Shanghai government in response to the country's call for birth control. For

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<sup>114</sup> Shufang Bao, 'Minguo Shiqi Jieyu Sichao Tanxi' (民国时期节育思潮探析 Analysis on the Thoughts of Birth Control in the Republic of China), Yangzhou University Master's Degree Thesis, 2004, pp. 56-57.

example, Yu highlighted efforts of the Shanghai Birth Control Institute and gynaecologists to promote birth control knowledge and supplies through government intervention in Shanghai. Similar to Bao, although Yu's research in this article is not restricted to intellectuals and ideological trends, it is still limited to policymakers and implementers in the upper and middle classes, such as officials and doctors. As Yu's research has been gradually refined, in terms of the aspect of fertility policy, women's discourse has entered Yu's perspective.<sup>115</sup> On one hand, in 'A Study of Knowledgeable Women's Perceptions on Birth Control and Contraceptive Methods in Republican China', Yu cast new light on the modern female experiences of, and feelings about, birth by discussing topics ranging from the self-determination of motherhood to women's opinions of new sexual morals. He did not only listen to the voices of women, but also touched on what methods and tools were used by both women and men under the concepts of the 'self-determination of motherhood' and 'free will of birth'.<sup>116</sup> On the other hand, Michelle T. King highlighted the contribution of female physicians and activists, who undertook the responsibility of opening birth

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<sup>115</sup> Lianshi Yu, 'Minguo Shiqi Chengshi Shengyu Jiezhì Yundong de Yanjiu', (民国时期城市生育节制运动的研究: 以北京、上海、南京为中心 Research on the Urban Fertility Control Movement during the Republic of China: Centered on Beijing, Shanghai and Nanjing), Doctoral Dissertation of Chinese Modern Contemporary History, Department of History, Fudan University, 2008, pp. vii-xi.

<sup>116</sup> Lianshi Yu, 'Minguo Shiqi Zhishi Nüxing dui Jieyu de Renshi he Biyun Fangfa' (民国时期知识女性对节育的认识和避孕方法 Intellectual Women's Understanding of Birth Control and Contraceptive Methods in the Republic of China, *Chinese Social History Review*, 3 (2011), pp. 257-74.

control clinics in Shanghai for the public regardless of their class. She stressed that the female participants' vision of the birth control movement moved away from racial improvement to humanity. Whilst the participation of female readers, physicians and intellectuals is paid tribute to in this chapter, their limitations are also discussed and reassessed.<sup>117</sup>

Beyond the literature on elites and gender, Frank Dikötter is against overemphasis on any particular group or 'the state' in the 'modernization' of society. In the case of 'sex modernity' he even noted the de-centred nature of power to curb the intellectual diversity and rebuild cultural life during the whole republican period.<sup>118</sup> Moreover, he offered an examination of scientific popularisation businesses, such as periodicals, vernacular newspapers and commercial advertisements. The many publishing houses in Shanghai took advantage of the relatively less centralised government while keenly propagating birth control knowledge and products to generate profit.<sup>119</sup>

In general there remains a lack of literature exclusively focusing on the introduction and application of different delivery and birth control technologies and products. Drawing on a large number of original materials

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<sup>117</sup> Michelle T. King, 'Margaret Sanger in Translation: Gender, Class, and Birth Control in 1920s China', *Journal of Women's History*, 3 (2017), pp. 61-83.

<sup>118</sup> Frank Dikötter, *Sex, Culture and Modernity in China*, (London: Hurst&Company, 1995), p. 5.

<sup>119</sup> Frank Dikötter, *Sex, Culture and Modernity in China*, p. 3.

this dissertation, in Chapters 4 and 5, explores the specific forms of reproduction and birth control that existed in republican China, the reasons for their evolution and their limitations, and their impact on different classes and genders.

My research on medical materials within certain political, economic and cultural backgrounds aims to build a comprehensive understanding of people's efforts to reveal the appropriation of foreign cultures and the social changes in this period with the support of rarely-used primary sources, such as medical trade catalogues and company records, and governments' annual reports, as well as the objects themselves.

### **Main structure and focus of each chapter**

This dissertation examines the sweeping changes in the material culture of Republican Shanghai by examining the production and adaptation of medical objects, their users and political and cultural contexts. It explores the transmission of Western medical equipment from 1912 to 1949. Focusing on the interaction between the medical equipment and the political structures, cultural reflection, social activities and personal experiences, I aim to capture those changes while reassessing the broad issues of the medical profession, the media and gender in a East-West context.



## **Chapter 2. Public Policies, Political and Cultural Events and Their Connection to Medical Equipment**

This chapter highlights the political efforts to construct a public health system, drawing evidence from the official publication *Weisheng Yuekan* (卫生月刊 Health Monthly) and the Shanghai Municipal Archives. It examines the role of the Nationalist government in the development of medical devices when the reform and the establishment of the ‘modern’ health system first began in Shanghai. It looks at how the government set up particular departments to deal exclusively with health issues, including policies and regulations, hygiene and vaccination campaigns, such as school hygiene. The aim of the chapter is to select and analyse the public policies of the Nationalist government that affected the development of medical equipment before and after the Anti-Japanese War from 1937 to 1945.

## **Chapter 3. Media and Medical Equipment in Republican Shanghai**

Drawing reports and editorials from the media, mainly the influential Shanghai newspaper *Shenbao* (申报), I explore in Chapter Three how the imported medical equipment and their derivative products enriched the rising printing industry and how those equipment-centred practices were dispersed via the vehicle of words. With the media’s and medical

professionals' efforts, the print culture served as a powerful agent cooperating with the government's instructions and collecting feedback from readers.

This chapter firstly provides a general introduction to the evidence for the main examples of media outlets and of the types of medical equipment introduced. Then, it provides an analysis of how the equipment was portrayed in the media. Next, the emphasis is on how the equipment worked within the public health system formed for the city by the government, medical institutes and the public.

It aims to fill the gaps by revealing the vital role of the mass media influencing people's understanding of medical products by publishing advertisements and participating in public health events. This chapter also examines the interaction between medical equipment and the media as material and cultural vehicles for social transformation. The conclusion summarises the important role the media played in popularising the medical equipment and the subtle changes in the relationship between the government and hospitals reflected by the media during this process.

#### **Chapter 4. Women and Medical Equipment during the Childbirth Hygiene Construction Movement**

This chapter highlights how the concept of 'intimacy' can be applied to analyse societal changes, inspired by Francesca Bray's discussion of the role of technology in constructing bonds of perceived proximity and political economy. Instead of defining technologies as 'advanced', 'traditional' or 'mixed', the analysis of intimacy implies 'closeness or interdependence, an intertwining of human lives and experiences, replete with the tensions, contradictions and imbalances of power typical of any form of reciprocity'.<sup>120</sup> This concept is used for the investigation of childbirth technology to emphasise that modernisation as embodied in childbirth reform is not a process that can be defined as advanced or backward, or successful or failed. How medical equipment and women were involved and interacted with each other in the construction of a 'strong race' is the key question in this chapter.

## **Chapter 5. Birth Control and Daily Use Medical Products**

As I show in Chapters Four and Five, the reinterpretation of body brought changes to social and family life. Out of a sense of national crisis the government and the media reconsidered women's responsibilities to their families and their country. As a result, medical technology for childbirth and birth control became the focus of attention and transformation to a strong

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<sup>120</sup> Francesca Bray, 'Constructing Intimacy: Technology, Family and Gender in East Asia, *East Asian Science, Technology and Society: an International Journal*, 2 (2008), pp. 151-65.

race. My research on the reforms of childbirth and contraceptive methods aims to showcase how medical materials affected daily life, even the intimacy among family members, embodied with sublime missions and meanings.

To conclude, rather than judging what is modern and traditional, progressive and backward, new and old, and Western and Chinese, which was derived for political and commercial purpose, this dissertation focuses more on people's commitment to a better life experience and social environment. I will examine how they reacted either directly or in a roundabout way when faced with the many possibilities of unfamiliar medical equipment that could change their lives. My fundamental aim in this dissertation is to emphasise how the collective efforts and individualised changes were made around medical equipment in every social link.

### **Primary sources**

The primary sources referred to in this dissertation with regard to the traditions in the medical texts mainly include *Huang Di Nei Jing* (黄帝内经 Yellow Emperor's Inner Classic of Internal Medicine), *Nan Jing* (难经 Classic of Difficulties), *Shen Nong Ben Cao Jing* (神农本草经 Divine Farmer's Materia Medica Classic), *Shang Han Za Bing Lun* (伤寒杂病论 Treatise on

Cold Damage and Miscellaneous Disease), *Mai Jing* (脉经 Pulse Classic), *Furen Daquan Liangfang* (妇人大全良方 prescriptions for Women), *Simin Yueling* (四民月令 Monthly Ordinances for the Four Classes of People), *Yushi Beichan Jiyongfang* 虞氏备产济用方 (Yu's Preparation and Economical prescription), *Ishinpō* (医心方 The Healing Arts) , *Taiping Yulan* (太平御览 Imperial Overview).

A key archive for this research was the Shanghai Municipal Archives, which holds a massive archive of material related to the prevention and treatment of infectious diseases in the Republican period. These archives include annual reports, laws and regulations, reports about plagues, records of meetings and project plans from the Shanghai Municipal Government, the Shanghai Municipal Council and the Shanghai Municipal Health Bureau. Local chronicles of Shanghai also helped me to investigate events and policies.

Secondly, I consulted newspapers, medical journals and radio records of Shanghai at the National Library of China and the Shanghai Library. This included medical journals, church newsletters and daily newspapers, such as: *North China Daily News* 志林西报 (1864-1951), *Shenbao* 申报 (1872-1949), *Dagongbao* 大公报 (1902-), *Funü shibao* 妇女时报 (1911-1917), *Funü zazhi*

妇女杂志 (1915-1931), *Shibao* 时报 (1904-1939), and *Weisheng Yuekan* 卫生月刊 (1928-1937).

Also, a large number of medical periodicals were made available online by the National Library of China(中国国家图书馆).

Thirdly, the annual reports, selling reports and trading records of relevant institutions, including hospitals and pharmaceutical companies, were a vital source to investigate products' manufacturers, users, consumers, marketing trends and other aspects showing the objects' influence. One of the main sources was the reports of the government's investigation into hospitals and pharmaceutical companies held by the Shanghai Municipal Archives. Also, institutions such as Renji Hospital(missionary hospital) and the New Asia Pharmaceuticals carefully record their own financial transactions, advanced equipment, management systems and major products. Renji's records are accessible online as part of the hospital culture and the New Asia Pharmaceuticals, although their records are kept in their office, they publish some for publicity.

Fourthly, inspired by Roy Porter, who is a master of illustrating disease through the voices of literary figures, literature such as letters, memoirs,

prose, realistic novels movies and stage plays has also been examined.<sup>121</sup> For example, the writers sometimes vied with each other to comment on their maladies providing vivid testimonies. In this case, I searched for literature written by writers such as Laoshe, who had lived in Shanghai. However, this kind of literature portrays mainly the perspective of the intellectual.

Of course, there was no easy way to walk into ordinary people's lives a hundred years ago. Given the widespread poverty and illiteracy in the period, it is questionable how and whether periodicals and the transportation of materials could gain access to ordinary people. The extant primary sources are mostly written by the educated, who inevitably had their own particular perspectives about the facts.

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<sup>121</sup> Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*.

## **Chapter 2. Public Policies, Political and Cultural Events and Their**

### **Connection to Medical Equipment**

In Republican China, from 1912 to 1949, different governments, particularly the Guomindang (GMD) government (1927-1949), following the model of Western regimes, conducted continuous political, economic and cultural reforms to build the new nation. Public health played a major role in the construction of the idea of the 'modern nation'. This model developed as a political imitation of Western countries and their process after The Renaissance, of which scientific methodology and national humanism were two core ideologies.<sup>122</sup> This chapter examines the role of the nationalist government in the development of medical devices when the reform and the establishment of the 'modern' health system first took place in Shanghai. The aim of the chapter is to select and analyse the public policies of the Nationalist government that affected the development of medical equipment before and after the Anti-Japanese War from 1937 to 1945. It looks at how the government set up particular departments to deal exclusively with health issues including policies and regulations, hygiene and vaccination campaigns such as school hygiene.

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<sup>122</sup> Jin Baoshan, 'Gonggong Weisheng', (公共衛生 Public Hygiene), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (01) 1928, pp. 3-15.



The 'modernity' of China's public health system on the governmental and political side has been much studied by scholars. One of the most representative works is Ruth Rogaski's *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*.<sup>123</sup> Rogaski investigated Tianjin, the third largest city and the most important treaty port in contemporary northern China, which shares many similarities with Shanghai in the South. Using both China and Japan as sources of her comprehensive primary sources, she portrays the role that the Japanese medical model played in China's implementation of public health reforms, such as designating military health officers and sanitary engineers in Tianjin. Her discussion of the definition of *weisheng* has had a huge influence among academic circles as well as being an extremely significant precursor to the material explored in this chapter, especially when discussing the role of political intention and the success or otherwise of particular approaches to a municipal health policy. She translated *weisheng* as 'hygienic modernity' which combines state agendas for national strength with the building of a healthy population. Rogaski offers an outstanding introduction to indigenous Chinese medical concepts of the body, health and disease, and health-promoting activities, by laying out the transformations of language. These transformations were

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<sup>123</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*, (Berkeley: University of California Press, 2004), 187-89.

mainly parallel to the militarisation in Tianjin affected by Japan's intervention. This chapter (and the next chapter) investigates how equipment-centred practices dispersed via the vehicle of words and the popularisation of new concepts, such as x-ray and 电疗 (diathermy), in the more commercial city of Shanghai.

Inspired by Rogaski, many scholars have compared the reform of Chinese public health with the hygiene reforms in Japan. For instance, Hu Cheng discussed the influence of the Japanese occupation in China and reforms within Japan itself, which showed strong nationalistic characteristics based upon the imported Western system.<sup>124</sup> Wang Jing has a closer look at Japan's discourse on hygiene sharing with Hu Cheng the idea that hygiene as an aspect of modernity in Meiji Japan was not a matter of simple belated imitation of Western models.<sup>125</sup> Further research on the comparison between public health education in India and China is a good case study to investigate and contrast the British colonial influence on public health in different countries and cities. However, none of the mentioned research has looked into medical equipment, which should have been a major part of hygienic modernity as a vehicle of medical knowledge, investment, cultural recognition and governmental control.

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<sup>124</sup> Hu Cheng, 'The modernization of Japanese and Chinese Medicine (1914-1931)', *Chinese Studies in History*, (47) 2014, pp. 78-94.

<sup>125</sup> Wang Jing, 'The Empire of Hygiene- Hygienic Discourse in Modern Japan', *East Asian Forum*, (13) 2010, pp. 52-69.

Frank Dikötter's 'A Cultural History of the Syringe in Modern China' fills a part of the gap between medical equipment and the building of public health.<sup>126</sup> Focusing on the history of the syringe from its first appearance in China, the article discusses much about China's needle culture, from the use of syringes and morphine to the utilisation of a narcotic culture in general for medical use. His research provides a profound study of the cultural adaptation in China when syringes first became popular and the factors which contributed to the successful enculturation of the hypodermic needle in China. Only a paragraph connects the popularity of syringes with the mass vaccine injection movements. Nor does the author see syringes as part of medical equipment, which leaves much room for further studies on the history of medical materials and its interaction with hygienic modernity in a large frame. On the whole, Dikötter's theoretical approach concerning modernity to explore the equal importance of cultural, social and political factors, as well as both elite and popular perspectives, is very insightful and persuasive.

The main primary sources used in this chapter are the official publication *Weisheng Yuekan* (卫生月刊 *Health Monthly*) and documents selected from the Shanghai Municipal Archives. *Weisheng Yuekan* was published by the

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<sup>126</sup> Frank Dikötter, 'A Cultural History of the Syringe', *Twentieth-Century China*, (28) 2002, pp. 37-56.

Shanghai Health Bureau from 1918 to 1937, discontinued in 1931 because of the Battle of Shanghai, and resumed in 1933. Most of the editors and authors were officials and public health experts with a foreign education background. For instance, one of the first contributors Jin Baoshan, also Chief of the Central Epidemiological Service of China, held degrees in public health from both Japanese and American universities. Li Xiangxi, the head of The Department of Hygiene, had the experience of travelling in Europe.<sup>127</sup> However, from 1942 to 1949, the publication was published sporadically due to the turbulent situation during the Anti-Japanese War from 1937 to 1945 and the Civil War from 1945 to 1949. Therefore, more primary sources, especially letters and official surveys from the Shanghai Municipal Archives, serve as an essential complement.

By analysing administrative plans, reports, regulations on medical equipment and their practical results, this chapter aims to investigate how the government selectively borrowed practices from other countries and grounded them into Chinese soil, as well as how the institutional setting of the government itself adjusted in order to promote the ‘modern’ medicine and equipment.

## **Governmental Organisation and Municipal Medical Institutions**

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<sup>127</sup> ‘Weisheng Jihua’, (卫生计划 Talk on Hygiene), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (02) 1928, pp. 1-2.

Once the Chinese National Government had been established at Nanjing in 1927, there was a great tendency and desire among the government authorities to do work along the line of public health.

In the early days of the Republic of China, with many Japanese students returning to China to practice medicine and entering the administrative system, the pro-Japanese government of Yuan Shikai determined an educational system reform based on the Japanese model. This established medical teaching with Western medicine as the core in universities and absorbed Japanese faculty members and followed Japan in the construction phase of the health administration system.

The director of the Central Epidemic Prevention Department and the founder of the Beijing Public Health Office was Fang Qing, a medical student who had returned from studying at the Chiba Medical College in Japan. Liu Daoren, the director of the Department of Health, took up office in 1917 and also studied in Japan. The chief instructor of the Beiyang Military Medical School was a Japanese doctor, Hiraga Seijirou (平贺精次郎). The influence of the Japanese health system on the initial stage of the health system in the early Republic of China was evident. In this period the main task of the Department of Health and the Central Epidemic Prevention Department was

to follow the example of the Northeast Epidemic Prevention Department established in Harbin in 1910-1911, under the control of Wu Liande, to deal with the plague epidemic in Shanxi Province. Due to limited funding the progress of the routine health administrative work was mainly centred on Beijing. However, due to the weak rule of the central government and the limited funding, these institutions had to lay off staff and adjust their health plans as a result of funding cuts after their establishment, hence making the implementation of actual work more difficult.

After the Nanjing National Government was established in 1927, on one hand the Ministry of Health of the new government hoped to use the intervention of the Ministry of Health of the League of Nations to realise the change of power. On the other hand, through the mediation and financial support of the Rockefeller Foundation, the League of Nations and British and American forces took the opportunity to implement a political expansion in China in the form of technical cooperation. Therefore, when facing the crossroad of transplanting Japan or building a health system following the example of Europe and the United States, China's path to the modernisation of health turned to be closer to the United States. The first manifestation was that the new Ministry of Health officials had experience of studying in the United Kingdom and the United States.

For example, Liu Ruiheng, the founder and leader of the Nanjing government's medical and public health undertakings, was a PhD graduate in medicine from Harvard University. He took over from Chen Fangzhi, who graduated with a doctorate in medicine at the Imperial University of Japan, as the director of the Ministry of Health. In the 1930s Jin Baoshan, Director of Health Care at the Ministry of Health and a graduate of Johns Hopkins University, decided to implement China's health construction in accordance with the Yugoslavian model after his expedition to Europe. He planned to obtain mutual support and form a network of experts with the same educational background. In addition, Liu Ruiheng's decision-making was mainly influenced by a Representative of the International Health Board of the Rockefeller Foundation, namely John B. Grant. Grant was also the chair of the public health department at Peking Union Medical College (PUMC). The PUMC was devoted to a trial of the urban primary public health service system in Beijing and the health assistance provided in rural Hebei, leading to the modernisation of health throughout Asian countries, such as India.<sup>128</sup>

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<sup>128</sup> On the interactions between China and the League of Nations, see Fandao She, *Shuyi yu Jindai Zhongguo- Weisheng de Zhiduhua he Shehui Bianqian* (The Plague and Modern China-- The Institutionalisation of Sanitation and Social Changes), translated by Puyan, Xinzhong Yu, Bin Jiang, (Beijing: Shehui Kexue Wenxian Chubanshe, 2019); Xiufeng Wu (ed.), *Zhongguo yu Guolian Jishu Hezuo zhi Jingguo yu Jiben Yuanze* (The Process of Technical Cooperation between China and the League of Nations), (Nanjing: The Second Historical Archives of China, 2003); Wei Guo, 'Zhongguo yu Guolian zai Weisheng Fangmian de Hezuo yu Hudong (1920-1939)' (Cooperation and Interaction between China and the League of Nations in Health(1920-1939)), Master's Thesis of Fudan University, 2008; Xi Gao, 'Weisheng zhidao yu Weisheng Zhengzhihua-- 20 Shiji Zhongguo Xiyi Tixi de Queli yu Yanbian(1900-1949)'(The Way of Hygiene and the Politicalisation of Hygiene: The Establishment and Evolution of China's Western Medicine System in the 20<sup>th</sup> Century),



Figure 1. Photo of Liu Ruiheng (刘瑞恒), 1926-1928<sup>129</sup>

It was of great value to set up a successful demonstration of public health work in one of the most important cities in China, Shanghai. As the commercial and political centre of China, Shanghai was given the privilege and high hope of fighting against the criticism from and arrogance of the foreign authorities in China, and especially to challenge the concessions afforded to these foreign authorities in the areas they occupied.<sup>130</sup>

The first organisation for public health work in Shanghai was established as an independent department in August 1926. The name of the department was The Department of Public Health, Port of Woosung and Shanghai(上海

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*Shilin*, 5(2014). On John B. Grant, see Mary Brown Bullock, Bridie Andrews, 'John B. Grant: Public Health and State Medicine', *Medical Transitions in Twentieth-Century China*, (Bloomington: Indiana University Press, 2014), pp.212-26; Liping Bu, 'From Public Health to State Medicine: John B. Grant and China's Health Profession', *Harvard Asia Quarterly*, 14.4 (2012), pp. 8-15.

<sup>129</sup> Photo of Liu Ruiheng, *Chinese Medical Journal*, vol. 20, no. 1 (1934).

<sup>130</sup> 'Dashanghai Weisheng Jihua Baogao', (A General Review of Public Health Work in the Municipality of Greater Shanghai 大上海卫生计划报告), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (02) 1928.



及淞沪卫生局). Its main responsibilities were water supply and vaccination. When the nationalists occupied Shanghai in April 1927, it was renamed Sung Woo Health Department and consisted of four divisions and a secretarial service, none of which had any interest in or capability of regulating medical matters except to promote vaccination with limited influence.

July 1928 saw the establishment of the ambitious Bureau of Public Health with Dr. Hu Hongji as the commissioner. It served as an independent department under both the Municipality of Greater Shanghai and the Ministry of Health of the National Government of China. In contrast to its predecessor, the Bureau had two more divisions, The Public Health Laboratory and The Rural Health Demonstration.

Three months later, the City Public Health Laboratory was reorganised, expanded and had the first municipal-owned medical equipment, before the founding of the Shanghai General Hospital. Its main purpose was the inspection of the safety of food and water. As such, the laboratory services were limited to very simple ones such as the examination of blood. Albeit a very small number, the first batch of laboratory devices were bought and operated by the Bureau.

The new-founded Bureau did not replicate the public health systems of the so-called developed countries hastily. It took its first step in building experimental areas - the systematic school health service in April 1929 within 14 state-owned schools and the Kao-Chiao Rural Health Demonstration Centre in July 1929. There simple mobile and built-in clinics with uniform standards of medical equipment took on the tasks of physical examinations and basic treatments. Faced with shortages in finance and staff, these clinics arduously operated as an 'ambassador' sent from the Shanghai government to spread not only policies but also basic medical knowledge and practice.

In general, there were decisions about how the new methods might or might not be appropriate in China – and those decisions included considerations of private or public ownership. The planned activities for the new Bureau were divided as follows. Changes of policies in certain activities which involved medical equipment will be discussed in detail.

### **Birth and Death Reporting**

The Bureau started to collect data concerning birth and deaths in January 1928. These reports aimed at having a better understanding of the main threats to the health of the citizens and could be distributed within government departments and hospitals for further action.

## **Medical Registration**

Both old and modern type private practitioners, pharmacists, dentists and midwives who were practising in the Municipality were requested to register in the Bureau of Public Health within a definite period. The registration started from medical workers and institutes. Medical device providers were not required to register until 1930. Only those individuals and institutions who had been issued with a certificate by the Bureau were permitted to do business.<sup>131</sup>

## **Hospital Registration**

Registration of hospitals was done according to the requirement promulgated by the Ministry of Health. However, only basic information was collated such as the name of the hospital and its principal, address and contact. Medical equipment during this early registration period was not recorded in any standardised fashion.

The project for the public health system had stated three main tasks. First, smallpox, cholera and meningococcal meningitis were defined as the three most common and most threatening diseases and free vaccinations were

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<sup>131</sup> 'Dashanghai Weisheng Jihua Baogao', (A General Review of Public Health Work in the Municipality of Greater Shanghai 大上海卫生计划报告).

given to an increasing number of the population year on year. Therefore, nurses and syringes at this time were a very common image on the street in medical periodical and posters. The remaining two tasks were to gain control of communicable disease and to build up school health service. Below, I discuss in more detail the Bureau's functions of controlling communicable disease and promoting a School health service.

It could be seen that the project for the public health system contained thoughtful consideration of Shanghai's local features, financial ability and people's acceptability. The plan was not a simple mechanical application that merely imitated any other country's systems, although the officials did work hard to learn from other countries' experiences. However, Chinese officials were objective enough to be able to see when these models did not fit into the conditions in Shanghai and adapted them accordingly. For instance, in a review of a report on the medical industry in America in 1932, Lai Touyan criticised the waste of money and resources especially with regard to the high costs charged by private doctors using the extremely expensive medical equipment. He suggested that the state or municipal owned hospitals instead of private doctors should be equipped with those costly devices and that they could then be used to treat as many patients as possible at an

affordable price, in some cases for free.<sup>132</sup> It was this kind of critical thinking by officials and intellectuals that brought the Westernised process efficiently into Shanghai from a very low starting point in terms of medical equipment usage.

## **Registrations and Regulations**

Both old type and modern type private practitioners, pharmacists, dentists and midwives who were practising in the Municipality were requested to register in the Bureau of Public Health within a definite period. The first medical registration of physicians was made in 1926. The second registration took place in 1929. The Bureau organised committees to examine and register physicians, midwives, pharmacists and dentists. A total of 371 'native-trained physicians' and a total 108 'modern-trained physicians', fourteen midwives, 54 pharmacists and 50 dentists passed the examination and were registered. After the period of registration was over, a special committee consisting of well-known modern and older types of medical men and different specialists were appointed by the Bureau with the approval of the Mayor for the investigation of the qualifications and character of the registered practitioners before certificates were issued. Special tests which

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<sup>132</sup> Lai Douyan, 'Ping Meiguo Renmin Yiliao Fuwu' (评美国人民医疗服务 Review of *Medical Care for the American People*), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (02) 1934, pp. 52-5.

examined the medical knowledge of applicants could be given by the committee if necessary. For Western trained medical practitioners the certificate was issued by the Ministry of Health.<sup>133</sup>

From the numbers of certificates issued, it was clear that the so called old type Chinese medical practitioners were still the main stream in medical business. 2722 of 3635 registered medical practitioners were old type Chinese doctors and 501 were so called modern medical doctors. Not to mention part of them were self-entitled modern doctors who used to be the apprentices or assistants of missionary doctors, people without a systematic education and updated medical device. Thus, the popularisation of modern medical equipment was never a matter of spontaneous approval, but required regular control and strict criteria and standards from the government.

Following the authentication of the qualifications of doctors, midwives and dentists, which was seen as the fundamental factor of medical practices, the Bureau finally took account of the role of medical equipment in the medical qualification process in 1930.<sup>134</sup>

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<sup>133</sup> 'Yiyuan Zhuze Baogao' (医院注册报告 Report on the Registration of Hospitals), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1930, pp.15-21.

<sup>134</sup> 'Yiyuan Zhuze Baogao', (医院注册报告 Report on the Registration of Hospitals), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1930, pp.15-21.

The disorder of medical sites in Shanghai had been a major obstacle for the Bureau in terms of its attempts to regulate the medical industry with the intention of establishing an evaluation standard centred on Western medical institutions. When stating the then current situation and the needs of hospital supervision, the Bureau expressed concerns around the lack of an official definition of the term 'hospital'. Most of the so-called 'hospitals' in the municipality were nothing more than ordinary medical consultation offices with only one or two doctors and nurses, who possibly had neither learning nor skill. Therefore, the Bureau created a concise definition before starting into registration, that a hospital should guarantee complete equipment and qualified doctors for its patients. Those unqualified were required to change their name.<sup>135</sup>

The registration of hospitals was conducted from 31 July, 1929, in accordance with the regulations promulgated by the Ministry of Health. Investigations were conducted within Chinese territory and all institutes named as a '医院' (hospitals) were requested to submit an application form for registration. By 1930, there was a small number of 31 hospitals who were registered with the recognition of well-equipped and qualified staff, two of which were based in the International Settlement and two in the French

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<sup>135</sup> 'Yiyuan Zhuze Baogao', (医院注册报告 Report on the Registration of Hospitals), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1930, pp.15-21.

Concession. The rest of the self-called ‘hospitals’ were either revoked or suggested to operate under the name of clinics according to the requirement in the newly issued ‘Regulation of Hospital Management’ (管理医院则规). The quality and quantity of equipment was an essential measure in this Regulation. One thing needs mentioning - ‘equipment’ here was a broad concept which referred to objects such as beds and fire prevention equipment. The only required medical equipment were those specifically for infectious patients.<sup>136</sup>

As the first step towards supervising medical activities, the Bureau was expecting more participation. A process report believed that it was the influence of foreign unequal treaties that slowed down the process of registration. It asserted that without doubt more efficient supervision and registration of hospitals could be expected if Shanghai were under unified administration.<sup>137</sup> The disappointment at the limited participation reflected the idea that the real intention of registration was to take centralised control of public health enterprise rather than ensure medical activities were conducted with sophisticated tools. However, stringent specification on medical equipment would easily restrain collaboration from those hospitals,

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<sup>136</sup> ‘Yiyuan Guize’, (医院规则 Regulation of Hospitals), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3)1930, pp. 22-25.

<sup>137</sup> ‘Yiyuan Zhuce Baogao’, (医院注册报告 Report on the Registration of Hospitals), 15-21.



most of which struggled to meet the standard. Only for specialised hospitals, an amendment regulation in 1935 demanded inspection of 'special equipment' before registration.<sup>138</sup> It was understandable that at this stage, medical equipment was not the main concern for the registration of hospitals although the equipment was regarded as part of the ingredients to distinguish hospitals.

Following the registration and identification of medical institutes, the Bureau moved on to establish itself among pharmacists and medical device providers. As mentioned before, both Chinese and Western medicine, as well as medical devices were administered by the Department of Medicine under the Bureau. Thus, the pharmacists and medical device providers went through very similar processes to register and apply for licences. Licences had to be renewed every year and an application form and fee were the main requirements. The only exception was for syringes and injection needles. The sellers of these instruments also had to comply with the Provisional Rules for Syringes and Injection Needles which required details of every order for approval.<sup>139</sup> The buyers needed to provide a signature or seal from registered doctors and medical institutes to ensure the syringes and

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<sup>138</sup> 'Shanghai Yiyuan Xiuzheng Fagui', (上海医院修正法规 Amendments of Regulation of Hospitals in Shanghai), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (12) 1935, p.558.

<sup>139</sup> 'Yaoshang he Yiliao Qixie Gongyingshang Fagui', (药商和医疗器械供应商注册法规 Regulation for the Registration of Pharmacists and Medical Device Providers), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (9) 1930, pp. 39-40.

needles would be used for medical use.<sup>140</sup> As needles became fashionable in Shanghai by the end of nineteenth century, this special attention from the Shanghai government aimed to prevent the illegal import and abuse of syringes and needles by quacks and morphine addict.

Annual registration was suspended at the breakout of the Anti-Japanese War in 1937. The foreign concession areas were ultimately occupied by the Japanese on 8 December 1941 and the Japanese-controlled Shanghai government was founded in 1942.<sup>141</sup> The latter asserted that the primary task of public health was to restore the work that had been done and it followed the previous regulation. Nevertheless, the new government showed more desire to control medical resources. For instance, medical device producers were required to renew their certificate monthly instead of annually.<sup>142</sup>

Generally speaking, the Shanghai government had put its effort into supervision by starting with legislating qualified medical practitioners and institutes. The main purpose was to regulate and take control of medical practice on its way to legislating Western medicine as the foundation of

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<sup>140</sup> Regulation for the Production and Selling of Syringes, *Weisheng Yuekan*, (卫生月刊 Health Monthly), (6) 1935, p. 822.

<sup>141</sup> Robert Bickers, Christian Henriot, *New Frontiers: Imperialism's New Communities in East Asia, 1842-1953*, (Manchester: Manchester University Press, 2000), pp. 125-32.

<sup>142</sup> 'Yaoshang he Yiliao Qixie Gongyingshang Fagui', (药商和医疗器械供应商注册法规 Regulation for the Registration of Pharmacists and Medical Device Providers), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (6) 1943, pp. 22-4.

public health. The government failed to recognise the value of the different types of medical equipment until they became valuable resources for military use during the Anti-Japanese War. The only regulation about syringes and needles was issued in the face of urgent problems caused by morphine addiction. The government did not even get so far as to create a standard negotiating fee for medical services such as surgeries, injection, consultation, etc., as it had planned.<sup>143</sup>

## Hygiene Mobilization

Chinese reformers and administrators during the Republican period paid special attention to the remaking of cities by introducing new systems and institutions, and disciplining what they called negative behaviour of city dwellers.<sup>144</sup> Meanwhile, the Shanghai authorities also sought to get rid of the impression among foreign occupiers that Shanghai was 'dirty', 'filthy', 'unclean' or 'unsanitary'.<sup>145</sup> The desire to create a hygienic city based on Western models contributed to the popularity of medical equipment. Shanghai's hygiene campaigns and implementation of inoculation programmes during the Republican period were the two main parts of the

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<sup>143</sup> 'Weisheng Tanhua', (卫生谈话 Talks on Hygiene), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1928, pp. 1-4.

<sup>144</sup> Chieko Nakajima, 'Health and Hygiene in Mass Mobilization: Hygiene Campaigns in Shanghai, 1920-1945', *Twentieth-Century China*, 11. 2008, pp. 44.

<sup>145</sup> 'Shanghai Weisheng Yundong Baogao', (上海卫生运动报告 A Report of Hygiene Campaign in Shanghai), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (5) 1928.

sanitation reforms which engaged a large part of the population with regard to medical equipment. During these reforms, the organisers implemented various methods and strategies, both educational and aggressive, in order to complete the scheduled tasks. Using certain medical equipment became politicised as part of the modern lifestyle and one's responsibility towards building a strong China.

In April 1928, the Public Health Bureau of the Shanghai Municipal Government held its first hygiene campaign(卫生运动).<sup>146</sup> Between 1928 and 1937, except for 1932, Shanghai's Chinese municipal government organised at least one hygiene campaign each year.<sup>147</sup> The hygiene campaigns usually lasted from one day to ten and mainly focused on cleaning the streets and promoting public health education. From time to time, posters, pamphlets, leaflets and handbills were distributed and exhibitions of medical knowledge and basic medical equipment were open to the public. In 1928, about 150,000 people attended the exhibitions and 125,000 leaflets were distributed.<sup>148</sup> Due to the short period of time and a lack of funding, the hygiene campaigns showed very limited effect on people's actual behaviour. As a result, the Bureau made a special effort and

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<sup>146</sup> 'Shanghai Weisheng Yundong Baogao', (上海卫生运动报告 A Report of Hygiene Campaign in Shanghai), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (5) 1928.

<sup>147</sup> Chieko Nakajima, 'Health and Hygiene in Mass Mobilization: Hygiene Campaigns in Shanghai, 1920-1945', p. 49.

<sup>148</sup> 'Da Shanghaishi Weisheng Gongzuo Gailan' (大上海卫生工作概览 A General Review of Public Health Work in the Municipality of Greater Shanghai), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (1) 1930, pp. 6-7.

invested heavily in an anti-epidemic vaccination programme aimed at preventing cholera, typhoid fever and smallpox, which was conducted strictly and monitored closely.

Many historians believe that vaccination was a popular medical programme in Republican Shanghai because of its medical efficacy as well as the popular belief in the use of syringes. Frank Dikötter points out that since the syringe was omnipresent in Republican Shanghai's medical culture and injections were treated as an effective method to cure and prevent diseases the hygiene campaign took advantage of this popular belief and made syringes an instrument of the municipal authority.<sup>149</sup> However, the anti-epidemic programme in Shanghai was never an easy task to undertake, and has not received enough credit for its contribution to the popularisation and demystification of syringes.

Since birth and death statistics had not been collected in Shanghai when the vaccination programme officially started in 1928, Beijing's statistics were used as a reference when analysing the biggest threats to people's health. Previous studies of the causes of death by the Peiping Health Centre revealed a large percentage of excessive deaths was due to a group of controllable infectious diseases, such as gastrointestinal diseases and

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<sup>149</sup> Frank Dikötter, 'A Cultural History of the Syringe in Modern China', pp. 37-56.

smallpox. Combined with the death rate report of Beijing and the prevalence of seasonal diseases in Shanghai, smallpox, cholera and meningococcal meningitis were defined as the three most common and most threatening diseases to Shanghai citizens.<sup>150</sup> From 1928, as part of the hygiene campaign and its follow-up action, free and extensive smallpox vaccinations were given to people all year and cholera vaccination was given to the public in the summer. The primary goal of the first year was to inoculate half of the population. However, in 1929, only 131,173 people were inoculated, which was only about 10% of the total population of Shanghai, and far less than the target. The Bureau was upset with the fact that personnel and funds were insufficient and many factories withheld cooperation, which seriously slowed down the process.<sup>151</sup> In 1929, the Bureau decided to increase the number of medical workers and intensify the programme. 20 dozen syringes, 50 dozen needles and 1.5million milliliters of cholera vaccines were purchased aimed at one million people, the primary target of which were workers in factories.<sup>152</sup> From 15 July to 31 August, 1929, disappointingly only 58,833 workers from 150 factories were reported to have received the injection. According to a report by Zhang Jun, mayor of Shanghai, many factories

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<sup>150</sup> 'Dashanghai Gonggong Weisheng Jihua (大上海公共卫生计划 A plan of public Health Work in the Municipality of Greater Shanghai), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1930, p.23.

<sup>151</sup> 'Xian Weisheng Gongzuo de Baogao he Jianyi' (现卫生工作的报告和建议 Report and Advice on Current Public Health Work), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (9) 1928.

<sup>152</sup> 'Xiaji Yimiao Zhushu Jihua', (夏季疫苗注射计划 Plan on Extending Vaccine Injection in Summer), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (2) 1930, pp. 29-33.

rejected doctors enlisted to administer the injections, and some doctors were even abused by the owners of those factories being afraid of those uninvited guests affecting their production efficiency.<sup>153</sup> Facing ignorance and stubborn resistance, the Chinese government in Shanghai had to give an order to ensure compliance with a schedule.<sup>154</sup> The biggest move was the organisation of anti-Cholera inoculation teams. The Bureau increased the number of physicians from each team from four to ten. As the schools were on vacation in the summer, nurses of the School Health Service were transferred to assist in the work. Ten teams were formed, one of which went with an ambulance car to vaccinate the pedestrians in the busy streets in day time, while another team took charge of the house-boats and the ferry boats. The rest of the teams went to factories and rural districts. The number of persons who received anti-cholera inoculations during that summer rose to 308,019. Since the total population of Greater Shanghai was estimated at 1,669,575 the immunised group among the population was therefore 18.6%, which was a considerable improvement on the 10% in 1928.

However, 18.6% was still not close to the target. In 1934, some rickshaw pullers and shanty town dwellers were slated to receive compulsory

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<sup>153</sup> 'Gongren Weisheng Yundong', (工人卫生运动 Document on Hygiene Campaign among Workers), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (2) 1930, p. 33-4.

<sup>154</sup> 'Zai Gongren Zhong Shishi Weisheng Yundong he Zhushe de Jihua' (2599 号令 在工人中实施卫生运动和注射的计划 Order 2599, Plan of Hygiene Campaign and Vaccine Injection among Workers), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (2) 1930, p.35-42.

injections for the reason that they were considered malnourished and unable to access quality drinking water. The physicians who were sent into the street also worked in cooperation with the police. Whoever refused vaccination would be arrested.<sup>155</sup>

Although some historians reckon that the vaccination programmes did not meet much resistance and vaccination was quite popular for its efficacy, it was a fact there was still fear among people and this hindered the Bureau from accomplishing its task fully. Many posters and leaflets were found during the hygiene campaign in 1934, easing people's fear of the pain from injection. In the comics below, the pain of injection was compared to the bite of a mosquito.<sup>156</sup> On a conceptual level the injection had a certain similarity with traditional acupuncture. Due to Frank Dikötter's finding of the application of injection, people knew of the concept '打针' sensation from acupuncture.<sup>157</sup> However, the difference between traditional acupuncture and injection therapy is evident, as acupuncture only stimulates acupoints and does not inject drugs, whilst the injection method not only invades the body but also injects drugs, and it requires other steps, such as disinfection and sterilisation. Especially when the syringe's needle was thicker and not

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<sup>155</sup> Chieko Nakajima, p. 68.

<sup>156</sup> 'Di Shisanci Weisheng de Tongzhi', (第十三届卫生运动的通知 Notice of the Thirteenth Hygienic Campaign), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (7) 1934, pp. 281-94.

<sup>157</sup> Frank Dikötter, 'A Cultural History of the Syringe', *Twentieth-Century China*, (28) 2002, pp. 37-56.



sharp enough in the early stage, it was easy for an accident of perforating blood vessels to occur during injection, which would be accompanied by pain.<sup>158</sup>



Figure 2. Scene of Injection in Comics, 1934<sup>159</sup>

In some rural areas, female nurses were criticised for being in possession of a syringe and travelling instead of staying at home. The government's call to accept injections were regarded by some people as an interruption of people's peaceful life. It was very hard to distribute information on the importance of epidemic prevention and, so, instead, the recommendation and biases of prominent community leaders, such as the head of the village, worked to influence the population towards a positive approach to vaccination rather than relying on the dissemination of information from

<sup>158</sup> Tianhuang Yu, 'Xiandai Yijia Yingyou zhi Zhishi: Jingmai Zhushu Fa' (Knowledge that Modern Physicians should have: Intravenous Injection Method), *Weisheng Bao*, 09.02.1929, pp. 8-9.

<sup>159</sup> 'Shanghai Shi Dishisanjie Weishengdahui Jinggao Minzhong Shu' (上海市第十三届卫生大会敬告民众书 An Announcement of the Thirteenth Hygiene Campaign), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (7)1934, pp. 281-94.

medical staff.<sup>160</sup> It can be seen that despite the effort put into publicity and even some aggressive methods, it took time for people to trust the preventive way of staying healthy and to conquer their fear of syringes and other Western style medical equipment.

The anti-cholera programme remained a standard campaign even during the Japanese period of occupation. In 1943, 30 injection teams were organised and 120 medical staff participated. From 15 June to the end of July, a total of 944,806 people received injections, which was as many as 57.6% of the whole population in Shanghai.<sup>161</sup> At this point, the aim of ensuring that half of the population in Shanghai was immunized was finally achieved. Most importantly, medical equipment, in this case syringes, were made popular and brought into daily life as a result of continuous effort from the government.

As the Bureau wrote in a report, 'to express the desire of doing any piece of work was easy but to plan for it needed a great deal of experience and intelligence'. In making any plan of public health work in any part of China, the government needed to take the financial, social and political conditions

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<sup>160</sup> Ren Caiying, 'Banli Xiangcun Weisheng de Kunnan Jiqi Bujiu Banfa'(Difficulties and Remedial Measures of Implementing Rural Health), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (9) 1936, pp. 428-30.

<sup>161</sup> Yuan Jufan, 'Sanshiyinian Benshi Fanfzhi Huoluan Zhi Jingguo' (The Process of Preventing Cholera in 1942), *Weisheng Yuekan*, (卫生月刊 Health Monthly), 9(1943), pp. 1-4.

of that locality into consideration.<sup>162</sup> The Shanghai government realised that it was of no use to copy indiscriminately from the health plans of other countries when these were not practical to local conditions. Facing the difficulties of insufficient funding, shortages in medical staff, resistance from citizens, and the lack of education in Western medicine, the Shanghai government made a great contribution to the popularity of medical equipment from an uneasy start.

### **School Hygiene**

Health education and a health service in schools was initiated as one of the primary tasks as soon as the Public Health Bureau was founded.<sup>163</sup> Students were regarded as the future of the nation and they were expected to be the first generation who grew up with a belief in Western medicine and hygienic living habits. Moreover, schools were also treated as an example which would be followed by many Rural Demonstration Areas, partly because there was less difficulty in organisation and cooperation. Medical equipment was brought and introduced to students through various compulsory and voluntary activities such as physical examinations. The establishment of school clinics provided free health services and delivered instructions to

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<sup>162</sup> 'A plan of public Health Work in the Municipality of Greater Shanghai', *Weisheng Yuekan*, (卫生月刊 Health Monthly), (3) 1930, p.22.

<sup>163</sup> Hu Hongji, 'Weisheng Yuekan de Qiwang' (卫生月刊的期望 The Prospectus of *Health Monthly*), *Weisheng Yuekan*, (卫生月刊 Health Monthly), (1) 1928, p.1.

students, which enabled them to get used to the Western style of medical equipment with little concern about affordability. The government provided free services in school hygiene in response to efforts to modernize the education during the Republic of China period. Correcting the tendency for aristocratic education in the Republic of China and realizing the popularization, equalization and compulsory education of education have been the main goals of the government of the Republic of China to promote compulsory education since the 1920s. In situations of limited medical resources free and mobile medical examinations and school doctor services are still provided, which highlights the sincerity of the government to improve the civilian education.

School hygiene has been discussed by a number of historians in two directions, some focusing on medical service in schools and others on health education. The most striking results have been achieved by Zhang Danhong and Zhang Sumeng. Together, they published 12 articles on school hygiene in Shanghai during Republican China. Their articles on school health before the Revolution of 1911 give a detailed introduction which ranges from sanitation management and health curriculum to textbooks on hygiene.<sup>164</sup> The two also

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<sup>164</sup> Zhang Danmeng, Zhang Sumeng, 'Xinhai Geming Qiande Zhongguo Xuexiao Weisheng' (辛亥革命前的中国学校卫生 School Hygiene Before the 1911 Revolution), *Chinese Journal of School Health*, (6)2001, PP. 578-79. On the modernisation of education in Japan, see Yoko Yamasaki, 'The Impact of Western Progressive Educational Ideas in Japan: 1868-1940', *History of Education*, 9 (2010), pp. 575-88; Peter Tze Ming Ng, Yongguang Zhang, 'Nationalism,

investigate the influence from Germany and Japan on the setup and accreditation of school doctors. An academic degree in medicine and public health education training became the school doctors' qualification standard.<sup>165</sup> School doctors were seen as the most vital ingredient in terms of successfully delivering a health service for schools. This is understandable since only a small number of schools had their own infirmary. Most schools relied on designated community style doctors who travelled from school to school on certain days. However, the main difference after the intervention of the government was the medical equipment used for prevention and treatment, which was supported by government funding specifically and strictly set aside for the school hygiene project. Nevertheless, in spite of this specific funding model, the role played by medical equipment in the school health service requires further elaboration and explication and this is my intention in my research.

The idea of hygiene in school had long existed in China from the days of ancient China up to this period of the implementation of modern Western hygiene techniques. Students had always been required to wash their

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Modernisation, and Christian Education in 20<sup>th</sup> Century East Asia: A Comparison of the Situations in China, Japan, and Korea', in *Christian Presence and Progress in North-East Asia: Historical and Comparative Studies*, edited by Chong Ku Paek, Jiafeng Liu, Peter Tze Ming Ng, Jan A. B. Jongeneel, (Frankfurt am main: Peter Lang, 2011), pp. 57-72.

<sup>165</sup> Zhang Sumeng, Zhang Danhong, 'Zhongguo Zaoqi Xiaoyi Shezhi Gaishu' (中国早期校医设置概述 School Doctors in the Early Period of China), *Chinese Journal of School Health*,(4)1998,pp.241-2.

clothes and hands frequently.<sup>166</sup> The rules continued within the so called modern schools in the late Qing dynasty. For instance, the Imperial University of Peking would record a demerit for students who spat frequently.<sup>167</sup> In 1868, Sweden became the first country to demand that every school should have a school doctor. The trend was soon introduced into China with the invasions by Germany and Japan, according to the research by Zhang Danhong and Zhang Sumeng.<sup>168</sup> In Shanghai, Shanghua Primary School set an example for all schools in China. This municipal school purchased a lot of equipment. In 1924, there were more than 40 types of equipment, such as a thermometer, eye wash cups, an abscess basin and an abscess absorber.<sup>169</sup> However, Shanghua Primary School was one of the best schools in Shanghai, managed by the Commercial Press which had considerable funds at its disposal at that time.<sup>170</sup> With the exception of a few private primary schools that were equipped with medical instruments, most schools and their students suffered financial difficulties.

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<sup>166</sup> See Zhu Jieren, *Zhuzi Quanshu, Zhuxi Baike*, (朱熹百科 Zhuxi's Encyclopedia), Shanghai: Shanghai Chinese Classics Publishing House, 2002), pp. 372-6.

<sup>167</sup> Zhu Youxian, *Zhongguo Jindai Xuezhì Shiliao* (中国近代学制史料 Chinese Modern School System Historical Materials), (Shanghai: East China Normal University Press, 1989), p. 672.

<sup>168</sup> Zhang Danhong, Zhang Sumeng, 'Zhongguo Zaoqi Xiaoyi Shezhi Gaishu' (中国早期校医设置概述 An Introduction of Early China School Clinics), *Zhongguo Xuexiao Weisheng* (中国学校卫生), 4(1998), p. 241.

<sup>169</sup> Yang Binru, 'Xiaoxuexiao de Jiankang Jiaoyu' (小学校的健康教育 Education in Small Schools), *Education*, 11(1923).

<sup>170</sup> Qin Shaohua, *Shanghaishi Huajie Zhongxiaoxue Xuexiao Weisheng Yanjiu, 1929-1937* (上海市华界中小学卫生研究 Research of the Health Construction in Primary Schools and Secondary Schools in Shanghai, 1929-1937, Master Degree Thesis, East China Normal University, 2007).

There had been no government organized school hygiene before 1928, except for Beijing which had conducted a small scale pilot run, according to Sun Jiaqi in his brief introduction of the short history of school hygiene.<sup>171</sup> The public health model constructed for students in Shanghai was first introduced by the Department of Education among 20 selected municipal schools. In November 1928, a travelling clinic, consisting of a physician and a nurse, was set up. Treatment was performed at only six schools twice a week. The turning point was in 1929 when the Bureau of Public Health received a donation of 6869.68 dollars from the International Health Division of the Rockefeller Foundation.<sup>172</sup> The donation served as start-up capital which covered the full cost of school hygiene for the first year and half of the cost for the second year. In April 1929, a systematic school health service was started for 14 municipal schools with a student population of about 9000. The main activities of the school health included physical examination and medical clinics.<sup>173</sup>

## Physical Examination

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<sup>171</sup> Sun Jiaqi, 'The History of Public Health of Schools in Shanghai', *Weisheng Yuekan*, (卫生月刊 Health Monthly), (6) 1934, pp. 241-6.

<sup>172</sup> 'Report of Work of the International Health Division', *The Rockefeller Foundation Annual Report, 1929*, (New York, The Rockefeller Foundation, 1929), pp. 138-9.

<sup>173</sup> Shanghai Dashiji (Chronicle of Events in Shanghai), <http://www.shtong.gov.cn/node2/node2245/node67643/node67647/index.html>, accessed on 23th May, 2018.

The significance of a physical examination had been brought about and advocated by new intellectuals in China since the Qing Dynasty.<sup>174</sup> Ironically, those intellectuals were enlightened by foreign medical missionaries who collected statistics on the physical characteristics of the Chinese people, with the purpose of demonstrating the difference in physique in ethnography and then obtaining legitimate permission to have a say in or influence over the condition and physique of the Chinese, according to Zhang Hua in his study on the history of physical examination.<sup>175</sup>

After the establishment of the Republic of China, the implementation of a physical examination, including the correlation of specific diagnostic instruments and physique-assessing implements, started to become relevant to the discussion around the health of the population. For instance, *Republic Textbook-General Gymnastics* published in 1914 proposed a standard of provisions for the physical examination and the equipment required. The textbook was one of a series of gymnastics tutorials compiled by Japan returned student Xu Fulin with reference to the practice of Japanese students. As the author suggested, a general physical examination should include measurement of height, weight, bust, and the condition of the lungs.

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<sup>174</sup> Xu Fulin, *Gongheguo Jiaokeshu Putong Ticao* (Textbook of Normal Physical Exercise), (Shanghai: Commercial Press, 1914), p. 461.

<sup>175</sup> Zhang Hua, 'Qingmo Minchu Tige Jiancha Lun de Xingqi jiqi Shijian' (清末民初体格检查论的兴起及其实践 The Rise and Practice of Physical Examinations in the Late Qing Dynasty and the Early Republican China), *Modern History of China*, (3) 2013. [http://www.iqh.net.cn/info.asp?column\\_id=7957](http://www.iqh.net.cn/info.asp?column_id=7957) accessed on 26.03.2021.



The spine, the hearing, vision and teeth were also prioritised, and the presence of disease in the eyes and the ears was also particularly looked at. As for equipment, the author's introduction was particularly detailed. The weighing scales had to have a spirit level and be designed specifically to only measure human weight. The maximum volume of gas that the spirometer (a measuring instrument for measuring the vital capacity of the lungs) could hold had to be no less than 6000 ml. The visual chart for the analysis of eyesight operated on the same standards used today to establish 20-20 vision and short-sightedness and long-sightedness. There were detailed instructions for the use of all the equipment. For instance, it was strongly recommended that all equipment be tested before use to ascertain its efficiency. The audiometer for hearing tests was required to be wiped by leather and lubricated by oil to ensure sound quality. The theoretical ideas that grounded these examinations were introduced institutionally and nationwide in 1929 when Health Examination Rules for School Students were issued by the Ministry of Education of the Republic of China.<sup>176</sup> The Rules called for an annual physical examination of students across the country,

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<sup>176</sup> Xu Fulin, 'Gongheguo Jiaokeshu Putong Ticao (共和国教科书普通体操 Textbook of Normal Physical Exercise)', pp.461-4.

representing the official recognition of disease prevention. The examinations in Shanghai were planned and executed by the Shanghai Education Bureau.<sup>177</sup>

In 1928, a trial run was to test the ground for the national health plan according to the hitherto mentioned criteria. Before 1928, physical examinations were conducted along the lines set out by the late Qing Dynasty. However, from autumn 1928, the Department of Education engaged an ophthalmologist and a dentist covering 20 municipal schools to examine children's eyes and teeth for the most common diseases in these areas. All of the students in these schools had to have a complete physical examination in 1928-1929. Existing students would be examined every three years and new students were to be examined as they were admitted to the schools. The overall results of the examinations were not optimistic. 32% of the 5,669 examined students had Shayan (herpes simplex) and as many as 98% had dental diseases.<sup>178</sup> In addition to the concerning situation of students' ill-health, the Bureau was also not able to hold physical examinations as had been planned in 1928. Due to a lack of money and a lack of medical personnel, the Bureau only held three physical examinations from 1929 to 1931 before the Battle of Shanghai stopped all public health

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<sup>177</sup> Yaohua Wang, 'Wanqing Minguo Shiqi Shenti Jiancha Zhidu yu Shijian Yanjiu (1902-1949) (On the System and Practice of Physical Examination in the Late Qing Dynasty and the Republic of China), PhD thesis of University of Science and Technology Beijing, 2020.

<sup>178</sup> Sun Jiaqi, 'Shanghai de Weisheng Shi' (上海的学校公共卫生史 The History of Public Health of Schools in Shanghai', pp. 241-6.

programmes in 1932.<sup>179</sup> There were 7,137 students examined in 1929, 5,476 in 1930 and 3,551 in 1931. Only new students beginning school attended the physical examinations, which resulted in a relatively small number of participants. The overall results showed that Shayan and dental diseases were still continuously threatening students' health during those three years.

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Figure 3. Scene of Physical Examinations, 1929<sup>181</sup>

It was the post-war recovery work taken on by Li Yanan, the new Head of the Bureau of Health after the Battle of Shanghai in March 1932, and the death of Hu Hongji, the former Head of the Bureau of Health, in October, that led to a major increase in participation. Compared to Hu Hongji, Li Yanan had

<sup>179</sup> 'Weifu Ling Xuesheng Jiankang Jiancha Guize, Xuexiao Weisheng Shishi Fangan ji Yundong Dahui Shixing Dagang, June 1928- 11 September 1936.' (学生健康检查规则 Physical Examination Rules for School Students, School Hygiene Implementation Plan and Outline of the Campaign), Q235-1-333, The Shanghai Municipal Archives.

<sup>180</sup> Shanghai Sinianlai Weisheng Gongzuo Gaiyao(1932-1935) (上海四年来卫生工作概要 Summary of Health Work in Shanghai for Four Years, Y8-1-32, the Shanghai Municipal Archives.

<sup>181</sup> *Weisheng Yuekan*, (卫生月刊 Health Monthly), 11(1929).

more concern for and expertise on school hygiene. He was an associate professor at Peking Union Medical College (PUMC) who devoted himself to public health work as the head of the First Special Health Station of Peking established by PUMC.<sup>182</sup> During his tenure, he took the lead in handling the health work of four schools in the 'Health Demonstration Area' set up by the Health Station. His work was brought into Shanghai when he was appointed as Head of the Bureau of Health of Shanghai in 1932. After an inspection trip to Europe from 1935 to 1936, he established a clear and definitive plan of action on the scope and requirements of school hygiene which aimed at advocating that schools strictly ensure and safeguard the general health of students.<sup>183</sup> All school hygiene work had to be carried out by professional doctors and nurses and more schools were asked to participate in physical examinations and follow-up, in a systematic and methodical way, students' health after they had visited hospitals. As a result, in 1932, 9,003 students from 58 schools took part in physical examinations. The number reached 18,229 in 1933. As many as 146 schools were registered for the physical

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<sup>182</sup> Zhang Jing, 'Kangzhan Qian Beiping Diyi Weishengqu Shiwusuo de Xuexiao Weisheng Gongzuo' (抗战前北平第一卫生区事务所的学校卫生工作 School Health Work in Peking First Health District Office Before the War), *Zhongguo Shehui Kexueyuan Jindaishi Yanjiusuo Qingnian Xueshu Luntan* (中国社会科学院近代史研究所青年学术论坛 Youth Academic Forum of the Institute of Modern History, Chinese Academy of Social Sciences), (Beijing: Sociological Literature Press, 2013), p. 315.

<sup>183</sup> Mai Jincheng, 'Zhongguo Xuexiao Weisheng de Xianquzhe' (中国学校卫生的先驱者 The Pioneer of School Health in China: Dr. Li Yan'an), *Zhongguo Xuexiao Jiankang Zazhi* (中国学校健康杂志 *Chinese Journal of School Health*), (4)2017, pp. 483-4.

examination process in 1936, the year before the outbreak of the Second Aniti-Japanese War.<sup>184</sup>

The gradual participation in physical examinations showed a change in the connotation of 'school hygiene' from sanitation and cleanliness to staying healthy or a health-centred consciousness, which had its birth in the 'Western' way of diagnosing diseases. The physical examinations from 1929 aimed at diagnosing a wide range of diseases as defined by Western medicine, such as malnutrition, antiadoncus (the disease of the undesired enlargement of a kind of pharyngeal tonsil), anemia and short sightedness.<sup>185</sup>

The physical examinations organized by the Bureau of Health along with the Bureau of Education had made a great contribution to the promotion of diagnostic equipment among the younger generation of the time. It also set up a good start for the following disease elimination and prevention policies and made it easy for the popularisation of medical equipment for treatment.

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<sup>184</sup> 'Shanghaishi Sinianlai Weisheng Gongzuo Gaiyao' (Summary of Health Work in Shanghai for Four Years, 1932-1935), Y8-1-32, the Shanghai Municipal Archives, p. 45.

<sup>185</sup> Sun Jiaqi, 'Shanghaishi Zhi Xuexiao Weisheng' (School Hygiene in Shanghai), Y8-1-1358, the Shanghai Municipal Archives.

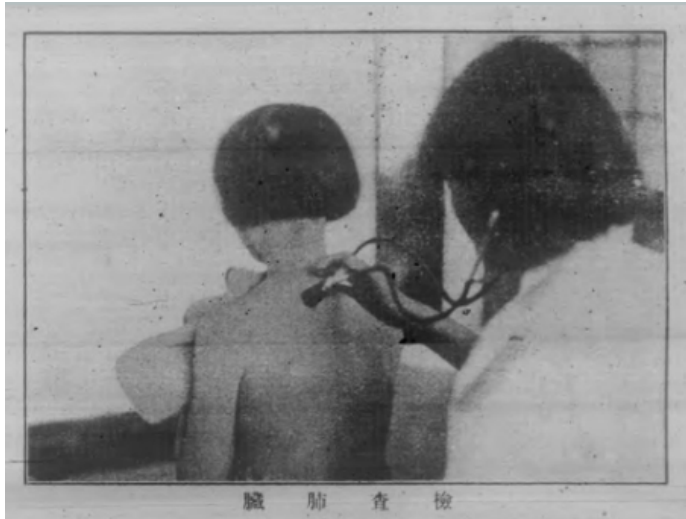


Figure 4. Examinations for Heart and Lungs, 1934 <sup>186</sup>

### Medical Clinics and the Elimination and Prevention of Diseases

After analysing the results of each physical examination, the Bureau and schools took the responsibility of informing and urging the parents to have their children treated by recommended hospitals.<sup>187</sup> The Bureau in this case worked as a connection between families and medical institutions to make it easier for students to get access to the latest medical resources and to do so under less financial burden. In coordination with the Bureau, the Shanghai Red Cross Hospital promised to reduce hospitalization fees for students. Special arrangements were made with the hospital and its eye and ear-nose-throat specialists to do the treatment at a very reasonable cost. Xihua Father

<sup>186</sup> *Weisheng Yuekan* (卫生月刊 Health Monthly), (5) 1934.

<sup>187</sup> 'Shanghai Tebieshi Jiaoyujie Baogao' (上海特别市教育界报告 Shanghai Special City Education Report), *Shanghai Jiaoyu*, (上海教育), (3) 1928.

& Son Optical Company and Huiling Optical Company gave a pair of glasses free each month and 15% off for the rest of students who held a physical examination result and referral letter from the Bureau.<sup>188</sup> Although the promotion was restricted to selected municipal schools, the Bureau had given an officially supported solution for diseases and short-sightedness.

In addition to cooperation with hospitals and optical companies, the Bureau also set up their own clinics coordinated with schools. In the School Hygiene Enforcement Act realised by the Education Ministry in February 1929, each school was required to set up its own clinic equipped by standardised devices. Those devices included diagnostic tools such as stethoscopes, thermometers and spatulas. Doctors and nurses had to wear white coats, white hats and rubber gloves as symbols of modernity and professionalism. The clinic also had to prepare disinfection supplies such as iodine, alcohol and absorbent cotton.<sup>189</sup>

As a response, the Bureau planned to set up clinics for school students. If schools had 200 or more students in attendance then basic medical clinics

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<sup>188</sup> See 'Shanghai Tebieshi Weishengju Xuexiao Weisheng Shishi Gaikuang'(上海特别市卫生局学校卫生实施概况 Overview of School Health Implementation in Shanghai Special City Health Bureau), *Weisheng Yuekan* (卫生月刊 Health Monthly, (5) 1929, pp. 2-8. 'Xihua Fuzi Yanjing Wei Youdai Shanghai Tebieshi Shili Xuexiao Xuesheng Peijing Banfa'(西华父子眼镜为优待上海特别市市立学校学生配镜办法 Xihua Father & Son Optical Company's Preferential Treatment of Students of Municipal Schools in Shanghai) 'Huiling Yanjing Gongsi Youdai Shanghai Tebieshi Shili Xuexiao' (Huiling Optical Company Gives Preferential Treatment to Students of Municipal Schools in Shanghai), *Weisheng Yuekan* (卫生月刊 Health Monthly, (5) 1929, pp. 29-30.

<sup>189</sup> 'Qiangzhi Xuexiao Weisheng' (强制学校卫生 School Hygiene Enforcement), *Weisheng Yuekan* (卫生月刊 Health Monthly, (6)1929, pp.15-33.

had to be set up by order of the government. These clinics then had the responsibility to give small-pox, cholera and meningitis vaccinations following at the direction of the Public Health Bureau. A school physician and a nurse went to each school twice a week to provide treatment for minor ailments. At this stage, most of the permanent supplies at the clinics were for cleaning purpose, such as towels, soaps and wash basin.<sup>190</sup>

Shanghai's following reaction aimed at its most common diseases concluded by the previous physical examinations because of the limitation of funds. On 2 May 1929, a tentative roving clinic with a professional dentist and dental equipment was set up, the opening time of which was 9am to 12 noon.<sup>191</sup> Students from nineteen selected municipal schools had the privilege of being treated free of charge. Their medical records were kept by their school if the student needed continuous treatment.<sup>192</sup> However, only a very limited number of students could get access to the 'special equipment' which the Bureau flaunted in their School Hygiene Report.<sup>193</sup> Furthermore, the high incidence of dental diseases required more involvement from more clinics

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<sup>190</sup> Sun Jiaqi, 'Shanghai Xuexiao Gonggong Weisheng Lishi' (上海学校公共卫生历史 The History of Public Health of Schools in Shanghai), *Weisheng Yuekan* (卫生月刊 Health Monthly, (6) 1934, pp. 241-6.

<sup>191</sup> 'Shanghai Xuexiao Weisheng Zongti Huigu' (上海学校卫生总体回顾 A General Review of the Public Health work in Schools', *Weisheng Yuekan* (卫生月刊 Health Monthly, (5) 1929, pp. 2-8.

<sup>192</sup> Sun Jiaqi, 'Shanghaishi Zhi Xuexiao Weisheng' (上海市之学校卫生 School Hygiene in Shanghai), *Weisheng Yuekan* (卫生月刊 Health Monthly (3), 1927.

<sup>193</sup> 'Shanghai Tebie Shi Weishengju Xuexiao Weisheng Shishi Gaikuang' (上海特别是卫生局学校卫生实施概况 Overview of School Hygiene Implementation in Shanghai Special City), *Weisheng Yuekan* (卫生月刊 Health Monthly, (3)1929, p.2-8.



than occurred, especially in relation to school-based clinics and medical personnel.



Figure 5. The Opening Day of Dental Clinic, 1929 <sup>194</sup>

Another proof of the limited influence of clinics at the early stage of school hygiene before 1932 was seen in a health knowledge test for school students in February 1930. The test involved 5,026 students in 41 schools, aiming to survey the misunderstanding of health and health programmes. The question which got the most wrong answers was 'What is the Meaning of Hygiene'. More students chose 'to stay clean' rather than 'to guard life', which became a precursor to the New Life Movement. <sup>195</sup> The school hygiene programme was still struggling to build the new understanding of hygiene

<sup>194</sup> 'Shanghai Xuexiao Gonggong Weisheng Gongzuo Gailan' (上海学校公共卫生工作概览 A General Review of the Public Health work in Schools), p. 7.

<sup>195</sup> 'Shanghai Tebieshi Shili Xuexiao Weisheng Changshi Ceyan Baogao', (上海特别市市立学校卫生常识测验报告 Health Knowledge Test Report for Shanghai Schools), *Weisheng Yuekan* (卫生月刊 Health Monthly, (7) 1930, p.1-25.

among people. One of the reasons was that the medical equipment and personnel that was put into the Public Health work were far from being enough to benefit the most of the people.

After 1932, the attention of school hygiene was turned into fighting against tuberculosis echoing the Anti-Tuberculosis Movement in the 1930s. Although parents were advised to take their children to hospitals for X-ray examinations, the high cost of X-ray tests scared them away. Therefore, the Head of the Bureau of Health, Li Yanan, introduced a simpler method, tuberculin Test, into tuberculosis tests among schools. Testers were injected with Tuberculin solution. People with Tuberculosis would show reactions such as flushing skin. The Bureau of Health first held this kind of tuberculosis test in Bide Primary School and a shocking 542 out of 822 testers had the mentioned reactions. The Bureau of Health invited The Shanghai Red Cross Hospital to cooperate in taking X-ray tests for those students. Students could only pay 3 yuan for an X-ray test. From 20 December 1933 to 10 January 1934, 129 students were scanned by X-rays and five of them were sent to hospital for recovery. 30 students were suggested to have half day off every day and 57 students were suggested to be examined every month. Schools were also advised to set up a recovery class only for tuberculosis patients

under the management of designated doctors and nurses.<sup>196</sup> Although there was no evidence showing that the anti-tuberculosis measures from the Bureau of Health had an impressive contribution to the control of tuberculosis in the Greater Shanghai, the Bureau had made good use of their medical resource and connection understanding the high costs of diagnosis and treatment for families. The Bureau also set an example for factories when trying to isolate patients while enable them to continue their work.

To conclude, the construction of a public health system in schools had popularised certain medical equipment such as dental and ophthalmology devices, X-ray machines and syringes. The experience of health work in schools also set an example for that in factories and rural areas. Although, the Bureau suffered from the limitation of funds for purchasing medical equipment, it encouraged and mobilised parents to be involved and assisted. However, the programme and activities associated with it were limited to selected municipal primary and secondary schools, of which the students were only a small part of all children in Shanghai. Under the effort of the Bureau of Health and the Bureau of Education, the number of schools that participated in School Hygiene was raised from 19 in 1929 to 146 in 1936,

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<sup>196</sup> 'Feilaobing zai Zhongguo Xuetong jian zhi Huoyue', (肺癆病在中国学童之活跃 The Threat of Tuberculosis among School Students), *Weisheng Yuekan* (卫生月刊 Health Monthly, (4) 1934, p. 138.

those were still only 15% of all municipal and private schools.<sup>197</sup> In this case, the government was not successful in mobilising as many as schools and families. Its contribution of popularising medical equipment and practice was mainly in a finite number of occasions such as setting up clinics and organising Tuberculosis tests.

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<sup>197</sup> 'Shanghaishi Sinianlai Weisheng Gongzuo Gaiyao'(上海市四年来卫生工作概要 Summary of Health Work in Shanghai for Four Years, 1932-1935), Y8-1-32, the Shanghai Municipal Archives, p. 45.

### **Chapter 3. Media and Medical Equipment in Republican Shanghai**

Public health provided an important avenue for the expansion of the national government's authority in facing social and environmental challenges. These challenges were created by the greatly expanding population. With China's defeat in 1842 in the Opium War many transportation hubs became treaty ports, among which Shanghai became a metropolis full of neon lights. Internationality became the most prominent feature of republican Shanghai. Being the leading place in the publication industry a widespread power for information dissemination manifested rich medical advertising content and political interference through the media. Therefore, republican Shanghai is an important place to investigate, due to its distinctive treaty-port environment, in which immigrants from all over the world settled. In practice the Shanghai city government made a great effort to build a modern public health system formed by the Department of Health, medical institutions and the public by intentionally intervening in people's behaviour and the operations of hospitals. During this process, new treatments and medical equipment from outside of China, such as microscopes, X-ray machines and stethoscopes, were widely imported and used to protect the general health of Shanghainese citizens. However, the process was not easy to start and there were difficulties, including a lack of

medical equipment at the very beginning, in facing two practical problems. Firstly, Chinese citizens were not familiar with the procedures in hospitals, and the equipment and treatment followed Western ways. Secondly, the Department of Health's economic strength was very fragile, especially when compared to the economic strength of the International Settlement. Plans were sometimes shelved due to a lack of funds. For instance, the funds for public health from the International Settlement in 1927 amounted to over two million Yuan, which was two Yuan per person. On the contrary, the funds from the Nationalist government were only 100,000 Yuan, which was less than 0.2 Yuan per person.<sup>198</sup> Although the Nationalist government had been encouraging the use of medical technology and equipment, it was not possible to enhance people's knowledge, change their medical conceptions and conduct their medical practices without the participation of non-government institutes.

Furthermore, persuading people to trust these new and generally high cost imports that had little to do with the firmly rooted Chinese medicine tradition required not only encouraging policies, but also a cultural environment.

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<sup>198</sup> 'Da Shanghai Weisheng Sheji Yijianshu', (大上海卫生设计意见书 *Suggestions on the Shanghai Health Plan*) *Weisheng Yuekan* (卫生月刊 *Health Monthly*, 1 (1928), p. 5.

In accordance with their social position and educational background, consumers' influence was mentioned but was undeveloped. For instance, how did their demands, their level of consumption and their consuming philosophy affect entrepreneurs' selection of medical products and marketing strategies? Unlike Cochran, Frank Dikötter focused on the many changes to lifestyles at the lower rungs of society and the leadership of the elite and middle-class entrepreneurs.<sup>199</sup> Dikötter's *Things Modern: Material Culture and Everyday Life in China* shows how the small and often severely constrained choices of the working class led to new commodities rapidly becoming part of the texture of everyday life. This book examines every procedure a new product would go through, as well as the different attitudes of various classes towards it. As a result, consumers' choices incrementally changed the material landscape of modern China. Regarding material culture, an inspired point of view was that 'material modernity was not a set of givens imposed by foreigners but a repertoire of new opportunities, a kit of tools which could be flexibly appropriated in a variety of imaginative ways', which inspired researchers to re-examine the definition of modernity, especially in China.<sup>200</sup> This is a powerful approach to follow in this research

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<sup>199</sup> Frank Dikötter, *Things Modern: material culture and everyday life in China* (London: C Hurst & Co Publishers Ltd, 2007), p. 1.

<sup>200</sup> Frank Dikötter, *Things Modern*, p. 7.

of medical materials, which not only examines what the West and Japan insisted, or a simple view of rejection, but shows a kind of hybridization.

When facing the question of what belongs to the 'modern' and the 'traditional' in China, rather than looking only at the moment of colonial encounter bringing in all the foreign ways of hygiene, which could create the problem discussed above, Ruth Rogaski investigated hygienic behaviours and concepts on a large scale. She proved that the Chinese concept of hygiene, washing, had long represented an ensemble of evolving health and lifestyle practices prior to the arrival of European conceptions of health. However, this concept was more likely to be a bodily regimen guiding a healthier way of life and wise individual choices. Thus, in the nineteenth century Chinese medicine was viewed as not being as efficient as people expected against plagues. When Western medicine arrived in China, Rogaski used a persuasive case displaying the multiplicity of colonialism (including Japanese) and the disunity of colonial powers and of science to avoid an argument over whether 'Western medicine' was playing a hero as a body of homogenous and uncontested knowledge when compared with Chinese medicine. In this way the problems, such as who is modern and whether or not modern means better, would be avoided, since the most effective instruments to cure would stand out and gain applause regardless of their origin.



Despite the attempts and creations from the aspects of policies, and market and material culture (mainly medicine) to explore the reasons for, and proof of, cultural and social changes, none of the previous research mentioned above has taken account of the mass media as a leading role in shaping public opinions in relation to people's attitudes towards 'modern things' in the medical world.

As scholarly enthusiasm has moved from politics to the material sphere of ordinary life, the mass media in republican Shanghai did attract both historians' and linguists' attention as a quickly rising industry, as well as cultural and political propaganda, which could influence people's language and lifestyle. Lee Hsia Hsu Ting first provided a comprehensive demonstration of the political control of the press in Modern China from the late Qing to the end of the republican period.<sup>201</sup> In terms of Newspapers, Sei Jeong Chin viewed the transformation of the Shanghai newspaper industry from 1937 as a process of nationalisation by demonstrating the structural changes of the newspaper industry and the ownership changes of the newspapers.<sup>202</sup> Rather than governmental control, Rudolf stressed that the foreign community, who had been left out by historians, played a vital role in

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<sup>201</sup> Lee Hsia Hsu Ting, *Government Control of the Press in Modern China, 1900-1949*, (Cambridge: Harvard University Press).

<sup>202</sup> Sei Jeong Chin, 'The History Origins of the Nationalization of the Newspaper Industry in Modern China: A Case Study of the Shanghai Newspaper Industry, 1937-1953', *The China Review*, Vol.13, 2 (2013), pp. 1-34.

the rising of the Chinese public sphere. He used the *Shenbao*, one of the biggest newspapers in the republican Shanghai, as a case study to demonstrate foreigners' cultivation of an open Chinese public sphere.<sup>203</sup>

Broadcasting was also seen as a growing industry reaching into political and social mobilisation. Laura De Giorgi introduced the Nationalist Party's radio broadcasting policy as a case study in her research on communication technology and mass propaganda in Republican China.<sup>204</sup> From a different angle Wang Ying revealed the interaction between the broadcasting and social life by analysing the social functions of broadcasting.<sup>205</sup> The manipulation of the media paralleled Japan and Japan's colonial area in China. Gennifer Weisenfeld examined the technique of using modernisation as a method to forge a national consumer market. Hui Qi and Zhongjuan Li investigated the Publicity Office. This colonial authority targeted providing propaganda of enslavement to the people in Northeast China.<sup>206</sup>

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<sup>203</sup> Rudolf G. Wagner, 'The Role of the Foreign Community in the Chinese Public Sphere', *The China Quarterly*, 12 (1995), pp. 423-3.

<sup>204</sup> Laura De Giorgi, 'Communication Technology and Mass Propaganda in Republican China- The Nationalist Party's Radio Broadcasting Policy and Organisation during the Nanjing Decade (1927-1937)', *European Journal of East Asian Studies*, 13 (2014), pp. 305-29.

<sup>205</sup> Wang Ying, *Shanghai Guangbo yu Shehui Shenghuo Hudong Jizhi Yanjiu (1927-1937)* (上海广播与社会生活互动机制研究 A Study on the Interaction between Broadcast and Social Life in Shanghai), PhD thesis in 2007 of Huadong Shifan University.

<sup>206</sup> Hui Qi, Zhongjuan Li, Weiman Shiqi Riben dui Dongbei de Xinwen Jianguan yu Yulun Kongzhi- Yi Weiman Hongbaochu wei Zhongxin Taolun, (Journalism Supervision and Public Opinion Control by Japan in Northeast China in the Period of Puppet Manchuria), *Guoji Xinwenjie*, 7 (2013).

How exactly the policies did affect people and make social changes through media has drawn the interest of linguists. Ian Keen stated that, by making moral judgment and a commentary of community members, public media has shown the power playing on emotions and sentiments.<sup>207</sup> Although only a small part mentioned usage of the Chinese language, his theory on media's influence on morality enlightened my analysis of newspapers' market strategies of selling a non-traditional media service to the ordinary Chinese. When taking a closer look at the republican period, the linguists used the media as a tool to reveal how a certain political concept emerged in Chinese culture. Lidia H. Liu explored the legitimisation of the 'modern' and the 'West' in Chinese literary discourse and realised there are no hard and fast rules for the introduction of a new idea into China. Each case must be considered individually with all factors impinging.<sup>208</sup> Case studies on individual concepts were published a few years later. For example, Xiaocai Feng analysed the rhetoric of political participation, such as 'citizenship'. The word 'citizen' was first introduced in *Shenbao* and then frequently appeared in official venues controlled by politicians.<sup>209</sup> Unfortunately, neither this book nor other researchers' work has looked into the terms that might be

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<sup>207</sup> Ian Keen, 'The Language of Morality', *The Australian Journal of Anthropology*, 2015(26), pp. 332-48.

<sup>208</sup> Lidia H. Liu, 'Translingual Practice: Literature, National Culture and Translated Modernity-China, 1900-1937', *Harvard Journal of Asiatic Studies*, Vol. 58, 2 (1998), pp. 568-80.

<sup>209</sup> *Shenbao*, 18.02.1905, p.10.

introduced for a commercial purpose and has a closer connection to average people.<sup>210</sup>

The research discussed above on the mass media mainly focused on the development of media itself and its connection with political events, the public sphere, linguistic evolution and commercial activities. Nevertheless, material culture was barely mentioned and medical equipment, which should have been an important part of both the public medical market and public health, remains untouched within the study of media.

This chapter aims to fill the research gaps by revealing the vital role of the mass media in influencing people's understanding of medical products by publishing advertisements and participating in public health events.

Shanghai was the birthplace of the New Culture Movement from 1915 to 1923.<sup>211</sup>

The major mission of the advocates of the New Culture Movement was to advocate for science and democracy. The New Culture supporters showed

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<sup>210</sup> Xiaocai Feng, 'Counterfeiting Legitimacy: Reflections on the Usurpation of Popular Politics and the "Political Culture" of China, 1912-1949', *Frontiers of History in China*, 8 (2013), pp. 202-222. For study on 'citizenship', also see 'Changing Meanings of Citizenship in Modern China by Merle Goldman and Elizabeth J. Perry', *China Review International*, Vol.11, 1 (2004), pp. 95-102; Xinxin Qiao, Jindai Minzu Guojia Goujian Guocheng zhong de Gongmin Shenfen Bianqian, (The Change of Citizenship in the Process of Constructing Modern Nation-States), *Guancha yu Sikao*, 12 (2019), pp. 71-8.

<sup>211</sup> Hu Shih, 'The Chinese Renaissance', in Franz Schurmann and Orville Schell (eds), *Republican China: Nationalism, War, and the Rise of Communism, 1911-1949*, (New York: Vintage Books, 1967), pp. 52-62.

great passion in introducing scientific knowledge through Western medicine and Western equipment. In doing so they embraced what they saw as a modern way of life. New Culture writers, such as Lu Xun, Chen Duxiu and Zhou Zuoren, advocated scientific knowledge in their articles and periodicals. Shanghai had the highest number of periodicals and newspapers, as well as the most developed advertising industry, in China. The publishers and advertisers perceived the popularisation of medical products as a way to increase their publication profits and, as a result, were eager to take part in this aspect of the New Culture Movement. The best recent study of the role of the media during the New Culture Movement is Elisabeth Forster's case study of how newspapers turned academic debates into a 'New Culture Movement'.<sup>212</sup>

This chapter will examine the interaction between medical equipment and the media as material and cultural vehicles for social transformation. The mass media illustrated to the public how the imported medical equipment could fit into the new medical system and how it might enrich the existing medical culture. The Shanghai culture quickly adapted to the new medical equipment. This chapter will firstly present a general introduction to the

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<sup>212</sup> Elisabeth Forster, 'From Academic Nitpicking to a "New Culture Movement": How Newspapers Turned Academic Debates into the Center of "May Fourth"', *Frontiers of History in China*, Volume 9, 4 (2014), pp. 534-57. For the connection between the New Culture Movement and the China's modernity, see Rana Mitter, *A Bitter Revolution: China's Struggle with the Modern World* (Oxford: Oxford University Press, 2004), pp. 1-49 .

evidence for the main examples of media outlets and of the types of medical equipment introduced. Then, it will provide an analysis of how the equipment was portrayed in the media. Next, the emphasis will be on how the equipment worked within the public health system formed for the city by the government, medical institutes and the public. The conclusion will summarise the important role the media played in popularising the medical equipment, as well as the subtle changes in the relationship between the government and hospitals reflected by the media during this process.

### **Newspapers and Medical Equipment in Republican Shanghai -- the Case of *Shenbao***

The media in Republican Shanghai encompassed the largest number of newspapers, magazines and radio programmes in China. They competed with each other for control of the cultural resources and for more readers and listeners. Popular periodicals, especially commercial newspapers, also competed for more profit from the advertisers and more attention from consumers. Hence, as the mass media was seeking to lead the influencing of public opinion and did provide an insight into public opinion, the attitude of

the media towards the Western culture to a certain degree complied with the attitudes of the public.<sup>213</sup>

It was the end of the nineteenth century that witnessed the rise of Chinese-owned newspapers. This coincided with a growth in Chinese nationalism in response to the intensification of foreign imperialism. In 1895, the Treaty of Shimonoseki ended the First Sino-Japanese War with a clear defeat for the Qing Empire, which had to cede to Japan in perpetuity and full sovereignty of the Pescadores Group, Formosa (Taiwan) and the eastern portion of the bay of Liaodong Peninsula, together with all fortifications, arsenals and public property. Chinese people were faced with the national crisis of their country being carved up by foreign powers.<sup>214</sup>

Chinese intellectuals hoped to enlighten the wider public about this existential threat through publishing periodicals. The growing number of literati in the wealthy and well-educated Jiangnan area around Shanghai provided not only an excellent market for print products but also a pool of

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<sup>213</sup> For the studies on the history of newspaper industry, see Barbara Mittler, *A Newspaper for China?: Power, Identity, and Change in Shanghai's News Media, 1872–1912*, (London: Harvard University Asia Center, 2004). And Sei Jeong Chin, 'The Historical Origins of the Nationalization of the Newspaper Industry in Modern China: A Case Study of the Shanghai Newspaper Industry, 1937-1953', *The China Review*, vol. 13, 2 (2013), pp. 1-34.

<sup>214</sup> For the political background in the 19th century China, see Robert Bickers, *Scramble for China: Foreign Devils in the Qing Empire, 1832-1914*, (London: Penguin, 2011).

educated people willing to make their livelihood as educators, journalists, translators, editors or clerks outside the government circuit.<sup>215</sup>

Therefore, this period was identified by historians as a period when periodicals flourished.<sup>216</sup> Excluding short-lived publications, as many as 99 daily paper titles and 23 evening papers were found to be published in Shanghai after 1895.<sup>217</sup>

From the large quantity of sources, this chapter will mainly focus on *Shenbao* when investigating the role of the media in the process of popularising medical equipment. *Shenbao* was praised by Rudolf as a newspaper that set the standard of an independent press in China, and which remained one of the most important and respected papers for most of the 70 years of its existence.<sup>218</sup> Missionary periodicals were the primary early source of foreign news that emerged in the late 20th century. Publications in different languages, such as *the North China Herald*(北华捷报), the *Missionary Herald*

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<sup>215</sup> Rudolf G. Wagner, 'The Role of the foreign Community in the Chinese Public Sphere', *The China Quarterly*, 142 (1995), p. 431.

<sup>216</sup> Cao Zhengwen and Zhang Guoying, *Jiu Shanghai Baokan Shihua* (旧上海报刊史话 History of Press in the Old Shanghai) (Shanghai: East China Normal University Press, 1991), pp. 1-2.

<sup>217</sup> Cao and Zhang, *Jiu Shanghai Baokan Shihua*, pp.179-189.

<sup>218</sup> Rudolf G. Wagner, 'The Role of the foreign Community in the Chinese Public Sphere', pp. 432.



(传教先锋) and *the Evangelisches Missions-Magazin*, integrated the media industry in China into a part of the global media system.<sup>219</sup>

The major reason for taking *Shenbao* as a case study was not only due to its comparative independence from the government, but also its commercial property and market strategies that supported *Shenbao* through governmental control and wars. The large amount of reports and advertisements has made *Shenbao* a key primary source for this chapter in investigating the policies, events, sellers and users, as well as reviews of medical equipment.

*Shenbao* was a daily newspaper established in 1872 by an Englishman, Ernest Major (1841-1908), who had been managing a business for Western cloth in Shanghai from 1862.<sup>220</sup> He was very straightforward about his intention to manage a newspaper, which was firstly for a business reason.<sup>221</sup> He found the idea of newspapers brought by 'Westerners' to be a success with Chinese characters in Hong Kong, and this made him very confident about his investment in *Shenbao*, in terms of starting a new trend in Shanghai and bringing the industry of newspapers to prosperity.<sup>222</sup> Under Ernest's

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<sup>219</sup> Thoralf Klein, 'Media Events and Missionary Periodicals: The Case of the Boxer War, 1900-1901', *Church History*, 6(2013), pp. 399-404.

<sup>220</sup> *Shenbao*, 19. 03. 1908.

<sup>221</sup> *Shenbao*, 11 .10. 1875.

<sup>222</sup> *Shenbao*, 30. 04. 1872

management, as Rudolf observed from *Shenbao's* own statement, *Shenbao* functioned as an international carrier of news and a channel of communication between the high and the low.<sup>223</sup> In this case, its business lay merely in selling as many papers as possible to make a profit with its readership limited to the bureaucracy and the medium.

It was during the Republican period its commercial features were multiplied by Ernest's successors and became distinctive within the industry of media. The turning point was in 1912 when Shi Liangcai (1880-1934), who will be a main character in the Anti-tuberculosis Movement in this chapter, became the largest shareholder until 1934. *Shenbao's* management was divided by him into three parts: editorial, finance and general.<sup>224</sup> In 1913, Zhang Zhuping was hired to take charge of the financial and general management. Ahead of most newspaper companies in Shanghai, Zhang recognised the commercial value of advertisements and established the Department of Advertising Promotion. This advertising department was divided into two parts, one for marketing to obtain business from commercial clients, and the other was responsible for design.<sup>225</sup> As well as adding staff especially for

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<sup>223</sup> Rudolf G. Wagner, 'The Role of the foreign Community in the Chinese Public Sphere', pp. 434.

<sup>224</sup> Weipin Tsai, *Reading Shenbao : nationalism, consumerism and individuality in China 1919-37*, (London: Palgrave Macmillan, 2010), p.10.

<sup>225</sup> Song Jun, *Shenbao de xingshuai* (The Rise and Fall of *Shenbao*), (Shanghai: Shanghai shehui kexueyuan chubanshe, 1996), p. 90. from *Reading Shenbao*, p. 10. For the management of *Shenbao*, also see 'YiMa, Miao Ma and Shi Liangcai *Shenbao* Jingying Linian de Xiandai Jiedu'(史量才《申报》经营理念的现代解读 A Modern Interpretation of Shi

advertising, *Shenbao* gradually increased its space for advertisements, from 50-60% before 1910 to 60%-70% after 1910.<sup>226</sup>

If the number and content of advertisements represented the productivity, or ‘an imaginary community’ penetrated by ‘the ideas of nationalism and commercialism’, then investigation of the readership might provide a response to this community in reality.<sup>227</sup> Although many researchers, such as Hannah Barker, pointed out that ‘newspaper readership’ cannot equate with ‘the public’, a newspaper with one of the broadest readerships and largest circulation is, spontaneously, a comprehensive record for social changes and material culture.<sup>228</sup> Several researchers have put effort into estimating the percentage of Shanghainese who may have a habit of reading *Shenbao* in daily life. The circulation number was claimed to be 150,000 in 1933, making *Shenbao* one of only two newspapers enjoying a circulation number of more than 100,000 in Shanghai.<sup>229</sup> In 1926, the circulation number was 141,440,

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Liangcai's Management Ideas in *Shenbao*), *Yangwang Shi liangcai: Quanguo Jinian Zhongguo Baoye Taikou Shi liangcai Xiansheng Danchen 130 Zhounian Xueshu Yantaohui Lunwenji*, (仰望史量才：全国纪念中国报业泰斗史量才先生诞辰 130 周年学术研讨会论文集 Looking up to Shi Liangcai: Proceedings of the National Symposium to Commemorate the 130th Anniversary of the Birth of Mr Shi Liangcai), pp. 105-112. 108

<sup>226</sup> ,Fan Hanqi, ed., *Zhongguo xinwen shiye tongshi* (中国新闻事业通史 A General History of Chinese Journalism), (Beijing: Beijing Zhongguo renmin daxue chubanshe, 2000). pp. ii., 78.

<sup>227</sup> Weipin Tsai, *Reading Shenbao : nationalism, consumerism and individuality in China 1919-37*, p.159.

<sup>228</sup> For the clarification between ‘Readership’ and ‘the Public’, see, Hannah Barker, *Newspapers, Politics, and Public Opinion in Late Eighteenth Century England* (Oxford: Oxford University Press, 2003), p. 22-23. Weipin Tsai, *Reading Shenbao : nationalism, consumerism and individuality in China 1919-37*, p.60-1.

<sup>229</sup> These statistical figures were published by KMT's Department of the Publicity Committee. *Shanghai Shenbao nianjian* (上海申报年鉴 The *Shun Pao* Year Book), (Shanghai: *Shenbao* nianjianshe, 1933), pp.2-3. Found by Weipin Tsai, *Reading Shenbao*, p. 10. However, Lin Yutang believed the actual figure of circulation to be approximately 100,000. see Lin Yutang, *A History of the Press and Public Opinion in China*, (Chicago: The University of Chicago Press, 1936), p. 131.

recorded by the Shanghai Municipal Archives as being the largest newspaper in Shanghai.<sup>230</sup> Huang Kewu announced a rough number of 500,000 people in Shanghai as *Shenbao's* readers, who were more likely to be middle class, such as businessmen, students, officials, journalists, engineers, lawyers, accountants and doctors.<sup>231</sup> According to the local chronicles of Shanghai, the population of Shanghai was 3,572,792 in 1934, which made the percentage of readers approximately 14% of the whole population.<sup>232</sup> The editor of *Shibao* (Eastern Times), another influential newspaper in Shanghai, recalled ordinary people in the lower reach of the Yangtze River often using the name *Shenbao* as a synonym for newspaper. An idiom in Shanghai 'Grab a piece of *Shenbao* paper to wrap it' also reflects how familiar *Shenbao* was to people living in and outside Shanghai.<sup>233</sup>

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<sup>230</sup> 'Qishiwu nianlai *Shenbao* de Guanggao Faxing ji Qita' (七十五年来《申报》的广告发行及其他 Advertising Distribution of *Shenbao* in the Past 75 Years and Other matters), Shanghai Municipal Archives (SMA), Q78-2-15745. Cited in Juai Pang, *Kuawenhua Guanggao yu Shimin Wenhua de Bianqian -- 1910-1930* (跨文化广告与市民文化的变迁——1910-1930年《申报》跨文化广告研究 Cross-cultural Advertising and the Changes of Citizens' Cultural - A Research on the Cross-cultural Advertising of *Shenbao* from 1910 to 1930), (Shanghai: Shanghai Jiaotong Daxue Chubanshe, 2011).

<sup>231</sup> Huang Kewu, 'Cong *Shenbao* Yiyao Guanggao kan Minchu Shanghai de Yiliao Wenhua yu Shehui Shenghuo, 1912-1926' (从申报医药广告看民初上海的医疗文化与社会生活 Shanghai's Medical Culture and Social Life in the Early Republic of China from the Application of Medical Advertisements 1912-1926), *Zhongyang Yanjiuyuan Jindaishi Yanjiusuo Jikan*, (中央研究院近代史研究所集刊 Journal of the Institute of Modern History, Academia Sinica Series 1), 1, 17(1988), p.144.

<sup>232</sup> Xiao Yanxiong, Peng Lingyan, 'The figure of Shanghai's population is found by Xiao Yanxiong and Peng Lingyan', (三十年代对女性美的消费——以《申报》美容、化妆品广告为中心 On Woman Beauty Consumption in 1930: Advertising of Cosmetics and Beauty Products on *Shenbao*), *Hunan Shifan Daxue Xuebao* (湖南师范大学学报 Journal of Hunan Normal University), pp. 132-140.

<sup>233</sup> Xu Zhucheng, *Baohai Jiuwen* (报海旧闻 Chinese Newspapers), (Shanghai: Shanghai Renmin Chubanshe, 1981).

Finally, for most of the time, it was free from the control of different political forces. Therefore, a large part of its income relied on advertisements, among which the proportion of medical products ranked first. In addition to more medical newspapers contributing to the spread of medical products, such as the National Medical Journal of China, which published advertisements for large-scale medical devices and even medical device training courses, daily life newspapers, such as the Liangyou Pictorial(良友画报), introduced the principles of medical devices in the form of photos. As a local newspaper in Shanghai with the largest circulation in the country, its declaration was more representative and influential than the periodicals. In 1922 medical advertisements contributed 34.9% of the total advertising space, according to Cao and Zhang's *Jiu Shanghai Baokan Shihua* (旧上海报刊史话). What these two authors did not acknowledge is that almost everyday *Shenbao* printed advertisements for medical equipment. For example, five out of the 56 medical advertisements mentioned treatment that involved equipment in the 4<sup>th</sup> January's *Shenbao* in 1922. Thus, *Shenbao* could reflect not only Shanghai's urban life, but also its medical culture. Compared to cultural studies scholars who prefer to see advertisements in newspapers as original sources, Lin Yutang displayed more concern and criticism, as large newspapers, such as *Shenbao*, were so commercialized that their operation

relied mainly on advertisements. Ironically, news became the minor part, filling all the gaps and losing its objectivity in many cases. The editing of *Shenbao* was considered by him as being the worst of all newspapers. However, he admitted *Shenbao's* influence and its achievements in extending circulation and readership.<sup>234</sup> Lin's concerns about advertisements being the major source of profit are not unique, as Huang Kewu's research of Western medicine found the reliability of advertisements to be questionable when dressed up by rhetoric and stories.

Previous research on the modernity of hygiene in Republican Shanghai noted the value of the media, and especially *Shenbao*, to investigate the medical culture reflected mainly in medical advertisements. Huang Kewu was one of the earliest to reveal the culture and society through medical advertisements. In the 1980s, by analysing the medical advertisements in *Shenbao* from 1912 to 1916, he found that all types of diseases were assumed to be caused by the brain, sex or blood, according to traditional Chinese medicine. However, people's views on the causes and treatment had been changing, as Western medical culture had begun to filter into everyday life. On one hand, the 'three-cause theory of diseases' and Huang's model to reveal cultural changes were used widely by other historians when working on other

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<sup>234</sup> Lin Yutang, *A History of the Press and Public Opinion in China*, p. 131.

periodicals, such as *Dagongbao* and *Liangyou Huabao*.<sup>235</sup> Yang Xiangyin, on the other hand, perceived the ubiquitous medical advertisements not only as evidence of medical culture, but also evidence of consumer culture. By looking into the marketing strategies of advertisements, he aimed to explore the meaning and features of Chinese modernity. In 2008 and 2010 he published two articles on advertisements of medicine and milk. Two symbolic meanings were central to modern Chinese modernity: the strong appeal of building a modern nation state and the desire for a modern lifestyle.<sup>236</sup> From all of the recent publications, Zhang Zhongmin chose a unique angle and investigated the ‘behind the scenes’ of creating a medical advertisement. He remained cautious when using medical advertisements as first hand resources. He questioned the truthfulness of the contents and then unearthed some phenomena showing that pharmacies and hospitals collaborated with well-known intellectuals in money-article exchanges. Those endorsers’ vivid experiences and sincere recommendations were

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<sup>235</sup> *Dagongbao* (1902-), also known as Ta Kung Pao, is established in the French Concession of Tianjin. It continued to be published after 1949 in Hong Kong. *Liangyou Huabao* (1926-1945), established in Shanghai in 1926, was an influential pictorial. Liu Juan, ‘Cong *Dagongbao* Yixuezhoukan Kan Minguo Shiqi Xiandai Weisheng Guannian de Chuanbo’, (从大公报医学周刊看民国时期现代卫生观念的传播 The Spread of Modern Hygiene Concepts in the Period of the Republic of China Viewed from the Medical Weekly of *Dagongbao*), *Journalism & Communication*, 5 (2014), pp. 98-128. Luo Wanxian, ‘Minguo Shiqi Yiyao Guanggao de Xuanchuan Tese- Yi Liangyou Huabao (1926-1945) de Yiliao Guanggao Zuo Yanjiu Gean’, (民国时期医药广告的宣传特色-以良友画报的医疗广告做研究个案 The Propaganda Features of Medical Advertisements in the Republic of China) *Chinese Social History Review*, 14 (2013), pp.146-69.

<sup>236</sup> Yang Xiangyin, Xu Jianwei, ‘Fanglao Jiu Guo: Zhongguo Fanglao Xiehui de Chengli ji Zaoqi Huodong (1933 - 1937)’ (防痨救国: 中国防痨协会的成立及早期活动 Prevent Tuberculosis and Save the Country: the Early Period of the Anti-Tuberculosis Association), *Jiangan Luntan* (健康论坛), 9 (2014), pp. 52-64.

proven to be fabricated by Zhang.<sup>237</sup> The medical advertisements in *Shenbao* had been valuable material for those historians to gain an understanding of people's conceptions of health and consumption.

However, previous research has failed to clarify the concepts of modern and modernity and how the medicine and marketing strategies make a difference. The main reason could be the focus being merely on medicine, as taking medicine was already part of Chinese therapy, and the major changes lay in the formation of a medical system and the acceptance of medical services was facing imported medical equipment and hygienic movements.

To be more specific, three important aspects of medical content in the mass media were missing, which led to a limitation of partially reading into advertisers' intentions and behaviour. The medical contents in *Shenbao*, for example, were far more than merely advertisements for medicine. Firstly, Western medical equipment should never be neglected when viewing the development and modernity of medical culture. Medical equipment was a crucial part in examining how connections were made between the latest medical technology and ordinary people's lives, which also makes it interesting evidence when studying marketing strategies. Secondly,

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<sup>237</sup> Zhang Zhongmin, 'Jindai Shanghai de Mingren Yiyao Guanggao - Yi Wenren Yuyao wei Zhongxin', (近代上海的名人医药广告 Celebrity Medical Advertisements in Modern Shanghai), *Academic Monthly*, 7 (2015), pp. 153-162.



compared with medicine, equipment is involved in all processes, from prevention, diagnosis and treatment to health care. Due to the gap in the medical device production technology between China and Western countries, the medical devices being used in China since the 19th century were mainly imported. Taking syringes and injection drugs as examples the production process required an aseptic operation and the liquid medicine had to be sealed in a container during storage. Before the 1920s domestic enterprises did not have such production conditions. Thus, Shanghai's medical device market was dominated by foreign companies and foreign pharmaceutical companies. In 1926 a local manufacturer, the New Asia Pharmaceutical Company, imported sterilised distilled water machines from Japan and produced sterilised distilled water for injection. By the end of the 1940s more than 20 pharmaceutical factories in Shanghai had produced injections for use by Shanghai hospitals and doctors, reducing the cost of using syringes.<sup>238</sup> In addition, these medical device manufacturers gradually mastered the production methods of other small medical supplies, such as scalpels, surgical forceps and dental racks. All those products had been used in many medical and non-medical places, such as in hospitals, clinics, pharmacies and at home. Therefore, medical equipment covers a wide range

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<sup>238</sup> Yanchang Li, 'You Jishu er Guannian: Zhushu Zhishi yu Shijian zai Jindai Zhongguo de Chuanbo' (Concept from Technology: The Dissemination of Injection Knowledge and Practice in Modern China), *Jindaishi Yanjiu*, 3 (2017).

of medical culture. Thirdly, the medical material in Shanghai cannot be fully interpreted by simply looking at the operation of the market. As well as the advertisements, the medical contents in *Shenbao* also include news, reports and letters from readers, which provides additional information, such as government policies, relevant events and public views. In considering all of this information, politicians and ordinary citizens, patients and healthy individuals, hospitals and private doctors, consumers and non-consumers were all placed into the process of establishing a modern public health system.

Unlike previous research, this chapter focuses on the medical equipment from various types of advertisement and the political incidents in which it was involved. The chapter not only aims to fill the research gap by adding narratives of medical equipment, but also explaining how the equipment has changed ordinary people's (beyond the range of readership) lives through promotion by both the government and the media. It also aims to show that, through the promotion in the media, marketing needs were largely fulfilled and policies were able to be acknowledged and pursued beyond the middle class to reach ordinary people.

The most common types of medical equipment seen in the media were X-ray machines, stethoscopes, microscopes, artificial pneumothorax apparatus (人工气胸) and blood pressure gauges.<sup>239</sup> These had to be imported from outside China during the Republican period, as local manufacturers were unable to produce them.<sup>240</sup> However, some of the smaller products and surgical tools, such as syringes, needles, scalpels and astral lamps, have been produced in Shanghai since the early 20th century and exported all over China and Southeast Asia.<sup>241</sup> This chapter divides the newspaper content relating to medical equipment into three types, namely advertisements, news reports and public announcements, as well as columns for medical knowledge and public discussions. Each type of content has played a remarkable role in communications between the government, medical institutions and the public.

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<sup>239</sup> Artificial pneumothorax apparatus is used to facilitate transcutaneous mediastinal biopsy and, infrequently, to treat pulmonary tuberculosis and pneumonia. *Medical Dictionary for the Health Professions and Nursing*. (2012).

<sup>240</sup> The Shanghai Municipal Medical Administration Committee, ed., *Shanghai Yiyao Zhi* 上海医药志 (Shanghai Medical Journal), (Shanghai: Shanghai Academy of Social Sciences Press, 1997).,

<sup>241</sup> The Shanghai Municipal Medical Administration Committee, ed., *Shanghai Yiyao Zhi* 上海医药志 (Shanghai Medical Journal).,

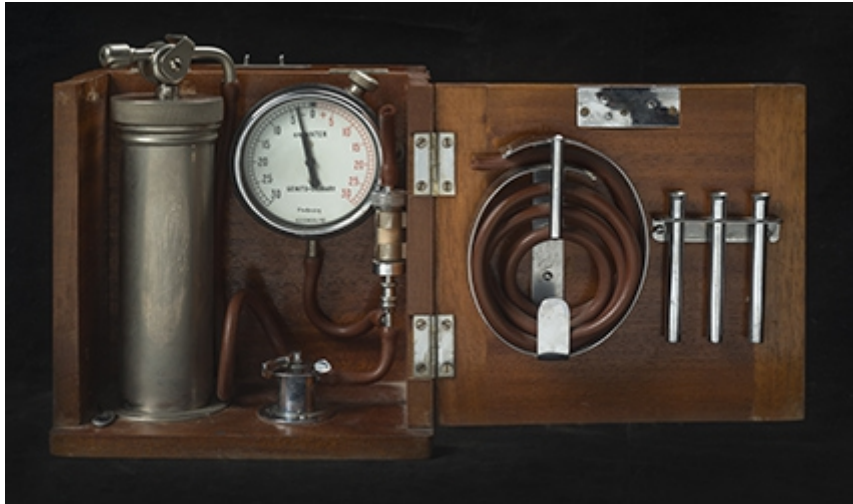


Figure. 1 Maxwell artificial pneumothorax, c. 1930. © RCP, photography John Chase<sup>242</sup>

### **Advertising Modernity**

In Republican Shanghai citizens had various ways of gaining access to novelties.<sup>243</sup> The industry of advertising passed on messages from advertisers to the widest public by many means, such as posters, newspapers, books and magazines, road signs, streetcars, radio, neon lighting signboards, print, films and slides. Among all of these sources advertisements in newspapers had a great advantage, in that they could be used for quantitative analysis, and *Shenbao* was able to provide a large number of examples. From the first

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<sup>242</sup> An artificial pneumothorax was an instrument allowing an affected lung to 'rest' and heal. The doctor would insert a large needle into the lung cavity and introduce air or nitrogen to artificially stimulate a lung collapse. See 'Banishing the 'White Plague': Innovations in the Treatment of Tuberculosis', <https://history.rcplondon.ac.uk/blog/banishing-white-plague-innovations-treatment-tuberculosis>, accessed on 26.03.2021.

<sup>243</sup> Frank Dikötter, *Things Modern*.

issue *Shenbao* was concerned about its advertising revenue. Hence, plenty of space was devoted to advertisements every day. All of the advertisements could be divided into six categories: transportation, financial dealings, education, medicine and hygiene, entertainment and public service. Out of all categories, medicine and hygiene had the largest number of pages. From 1901 to 1910 450,000 advertisements were published in *Shenbao*, and 30% of them were medical advertisements.<sup>244</sup> In considering the demand and purchasing power of the readers, advertisements related to medical equipment were promoting the Western style treatment often claimed by a hospital or a clinic. Medical instrument shops, pharmaceutical factories, pharmacies, doctors, clinics and hospitals (sanatoriums) were the six types of advertisers. From these the New Asia Hygienic Materials Company, Yaochang Medical Instrument Factory, No. 2 Tuberculosis Sanatorium, Shanghai Tuberculosis Sanatorium and several other institutes operated by the Chinese will be explored in the chapters on production and publicity.

Most of the advertisements for medical equipment came from hospitals and clinics. Introducing their expensive medical equipment became one of their marketing strategies to illustrate their outstanding medical conditions. They

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<sup>244</sup> Chen Shu, 'Wanqing Shanghai de Yiyao Wenhua yu Shehui Shenghuo - Yi *Shenbao* Guanggao wei Zhongxin de Yanjiu (1901-1910)' (晚清上海的医药文化与社会生活-以申报广告为中心的研究 Medical Culture and Social Life in Shanghai in the Late Qing Dynasty), Master degree thesis of Qingdao University, 2013, p.22.

had to ensure their patients trusted this equipment and treatment. Below are the five characteristics of how this equipment connected to the public through advertising.

### **Made in the 'West'**

The hospitals would seize every opportunity to announce their instruments were made in Europe or America. Items of up-to-date news, which were advertisements in disguise, showed the advantages of their “imports” as proof of their high level technological and financial ability. An advertisement by Renji Hospital in 1922 claimed that ‘due to the need of treating various diseases and injuries, an X-ray machine was transported from Europe to the Shanghai Renji Hospital for the use of scanning the bullets that entered and remained in soldiers’ bodies. This machine was particularly looked after by foreign experts. No other X-ray machines in Shanghai could match it. It could also benefit treatment in the future.’<sup>245</sup>

### **The 'New' Power**

Some hospitals would stress not only their ownership of the equipment, but also their consciousness of expanding the quantity of their existing

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<sup>245</sup> ‘Shanghai Renji Yiyuan Yundao Xinshi Aikesiguang’ (上海仁济医院新式爱克斯光 Shanghai Renji Hospital’s New X-ray Machine), *Shenbao*, 1922, 181-153-3.

equipment and replacing their old equipment. On the contrary, however, many advertisements provided options to avoid using medical equipment, especially in cases where patients might need surgery.

In an advertisement for the No. 2 Tuberculosis Sanatorium owned by a non-governmental organization called National Anti-Tuberculosis Association of China in 1929 the reason for expanding the X-ray department and purchasing new equipment was shown to be due to the high demand and large number of patients. The new equipment included a new X-ray machine, three alpine-sun lamps, a heating machine and a chemotherapy machine for lung cancer, which were all transported from Germany.<sup>246</sup> At the end of the 19th century X-ray was used in medicine soon after its discovery. Its precise detection of bullets and wounds was widely promoted on the battlefield, and this was a crucial transformative period when X-ray machines became popular in hospitals in Western countries, such as Germany, France, the United Kingdom, the United States and Italy. From 1938, in some European countries and in the United States, some shoe shops were also using an X-ray Shoe Fitter to illuminate their customers' feet to determine their shoe size. This application in daily life was not being gradually banned until people

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<sup>246</sup> The alpine-sun lamp was a model of ultra-violet light used for skin diseases, which was put on the market in 1911. Its therapeutic value resulted from the great intensity of ultra-violet light developed by the lamp. Hugo Bach, M.D., *Ultra-violet Light by Means of the Alpine Sun Lamp* (New York: Hoeber, 1916), p31.

became aware of the damage caused by radiation to the human body in the 1950s. Nevertheless, these examples show that X-ray was being commonly used in Western countries during the Republican period of China.<sup>247</sup>

To prove the curative effect of the treatments the No. 2 Tuberculosis Sanatorium used the experience of one of its own staff members who had been suffering from spitting of blood from his lung and a severe fever. The illness was diagnosed by an X-ray machine, and it was shown that the treatment was completed within a week through artificial pneumothorax.<sup>248</sup>

While giving a flourish of trumpets for their newly imported instruments, hospitals sometimes belittled the replaced ones or an instrument earlier imported. According to Shanghai Qingchun Hospital's (private hospital) advertisement in 1943, 'Outdated diathermy machines have absolutely no therapeutic value because of the inadequacy of heat not being able to remove the gonococcus bacteria adhering on the surface of an infected urethra completely. Patients would also suffer physical illness when experiencing this type of machines which are currently used by most hospitals.' Qingchun hospital blamed other hospitals for not being

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<sup>247</sup> The alpine-sun lamp was a model of ultra-violet light used for skin diseases, which was put on the market in 1911. Its therapeutic value resulted from the great intensity of ultra-violet light developed by the lamp. Hugo Bach, M.D., *Ultra-violet Light by Means of the Alpine Sun Lamp* (New York: Hoeber, 1916), p31.

<sup>248</sup> 'Shanghaishi Feibing Liaoyangyuan Shixing Rengong Qixiong Zhiliao Feibing Xiaoguo Xianzhu'(上海市肺病疗养院施行人工气胸治疗肺病效果显著 The Effect of Artificial Pneumothorax in the Treatment of Lung Disease in Shanghai Lung Disease Nursing Home is Remarkable), *Shenbao*, 1929, 259-404-4.



responsible to their patients, due to them being unwilling to make large scale investments in new plants. Then, Qingchun Hospital proudly announced itself to be a model among all hospitals by purchasing two German cutting-edge ultrashort wave electrotherapy machines and a diathermy machine<sup>249</sup> for women without hesitation despite their astonishingly high prices. In a way, the latest complex equipment became a kind of luxury. The stylish equipment from last season was nothing but a withered flower of yesterday in such a fashionable city as Shanghai.<sup>250</sup>

Despite the effectiveness of diathermy machines, concerns, and even fear, remained among patients regarding the machines' safety and comfortableness. Other than stressing the advancement of equipment, some hospitals or clinics without such abundant capital found other ways to compete. They chose to demonstrate their humanistic care towards patients' feelings. On the same page as the Qingchun Hospital's advertisement, Physician Dai De emphasised the importance of a surgeon's techniques to avoid pain and accidents. He also advised that, in some circumstances, patients did not need to be operated on, such as in the early stage of venereal inguinal lymphonoditis.<sup>251</sup> As a complement to this, some so-called

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<sup>249</sup> Diathermy machine can be used to warm or destroy tissue to relieving muscle soreness and sprain. It also can be an adjunct to surgery. <https://www.britannica.com/topic/diathermy>, accessed on 19.11.2017.

<sup>250</sup> 'Shanghai Qingchun Yiyuan - Diaoliao zhi Toushi' (上海青春医院), *Shenbao*, 1943, 383-437-5.

<sup>251</sup> 'Daide Yishi - Zhilin Zhenyao yu Shoushu' (戴德医事-志林真药与手术), *Shenbao*, 1943, 383-437-5.

Safe Gonococcus-Treating Equipment was sold by Shouren Hospital to repair any possible damage to the spermathecae caused by diathermy surgeries.<sup>252</sup>

The simultaneous existence of the two kinds of advertisements explained above reflected a mixture of public attitudes towards Western equipment and treatment, especially those that were not recognised as mature technology and were still being improved. Therefore, hospitals either focused on their ability to replace their current equipment or to avoid using it.

### **Top Equipment, Top Status**

Using the latest equipment had become an aesthetic orientation as well as a symbol of status, especially in hospitals trying to attract patients, not only with effective treatment, but also a pleasant and comfortable environment for recuperation. When introducing their recently extended building, the Shanghai Lung Diseases Sanatorium claimed that their three mercury vapour lamps with an ultraviolet light were the exact same ones the King of England was using. As well as providing the highest quality treatments, its aristocratic

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<sup>252</sup> 'Shouren Yiyuan Baizhuoke' (受仁医院白灼科), *Shenbao*, 1927, 231-23-8. Diathermy surgery is often used for sealing blood vessels or stopping the bleeding of incised vessels with an electrocautery of high frequency. Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition. © 2003 by Saunders.

recovering environment also included tennis courts, fountains, pavilions and balconies with fresh air.<sup>253</sup>

A well-equipped operating room and a guaranteed success rate were aspects of the attentive service that helped potential customers to have a clear mind and to not worry about pain and safety. For example, Hongqiao Hospital provided readers with a full and particular account of their newly completed operating room supported by a steam sterilisation room, a changing room, an equipment room and a pre-delivery room for expectant mothers. 'Within the operating room, there was air-conditioning to maintain an appropriate temperature. The rubber surface of the floor and the yellow ceramic tiles on the wall had the functions of reducing noises and dazzling lights. The optical system device in otolaryngology was from one of the world's leading companies ZEISS. This device ensured doctors could operate without shadows wherever the surgery table is. The hospital has received many tributes for its complete successful results of all Caesareans in nearly a month.'<sup>254</sup> The medical equipment as a symbol of treating techniques was supported by other elements of a pleasant environment. Furthermore, the

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<sup>253</sup> 'Shanghai Feibing Liaoyangyuan Kuochong Disan Fenyuan' (上海肺病疗养院扩充第三分院 Shanghai Lung Disease Nursing Hospital Expands Its Third Branch), *Shenbao*, 1929, 231-23-8.

<sup>254</sup> 'Hongqiao Liaoyangyuan Dashoushushi Jungong' (虹桥疗养院大手术室竣工 The Major Operating Room of Hongqiao Nursing Home was Completed), *Shenbao*, 1934, 323-114-5.

humanistic design and functions of the equipment were also aspects of that environment.

Experts who were capable of using the equipment became popular figures in the news and were selling points of the hospitals. When Renji Hospital first bought its X-ray machine in year 1922, foreign experts were hired to look after it, as, in the 1920s, China had a lack of professional courses and talent in this field. As more hospitals rushed into the medical market the imbalance between machines and professional training was causing a problem. Some hospitals set up their machines but had to share doctors with other hospitals. Thus, an expert in an X-ray department was very precious. It would always make big news in *Shenbao* when a Chinese doctor trained abroad came back to China as a radiologist. In some cases these radiologists would bring into China the equipment they had been working with. The hospitals, in this way, would benefit from both the equipment and the connection made with foreign institutions by the returned students. Shen Shubao was one of the students who had successfully completed his professional development abroad. Without graduating from Tongji Medical University, he went to Germany for further study at his own expense. He studied in the University of Berlin, Georg-August-University and the University of Tübingen and obtained his medical degree with top honours in 1920. At the expiration of

his contract with the hospitals of Georg-August-University and University of Tübingen as a surgeon and gynaecologist he decided to practise medicine in Shanghai, and returned together with his medical equipment.<sup>255</sup>

As hospitals were competing with each other with imported expensive X-ray machines, the medical community realised there was a shortage of X-ray experts. Ding Guojun had been a doctor in Tongji Hospital after his graduation from the Chinese Medical School in 1925, similar to many other medical students, but he became aware of the urgent need for China's own X-ray experts, and, thus, he went to the University of Pennsylvania to study Electrical Engineering at his own expense. After completing his PhD, he came back to China and received a warm welcome from many hospitals.<sup>256</sup>

Shen Chengwu had a similar progression of learning acquisition as Ding Guojun. However, Shen finally settled down in Shanghai in 1934 and opened his own clinic specialising in X-ray treatment, which benefited greatly from his experience of five years' X-ray research and thirteen years of medical practice abroad, and, most importantly, from the latest X-ray equipment brought from Europe.<sup>257</sup> However, it is uncommon for recently imported

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<sup>255</sup> 'Liude Yisheng Boshi Shenshubao Huiguo' (留德医生博士盛树宝回国 Dr. Sheng Shubao Returned to China), *Shenbao*, 1922, 201-206-4.

<sup>256</sup> 'Liude Yisheng Boshi Shenshubao Huiguo', (留德医生博士盛树宝回国).

<sup>257</sup> 'Aikesiguang Zhuanjia Shenchengwu Xuanhu Shezhen' (爱克斯光专家沈成武悬壶设诊 X-ray expert Shen Chengwu Set up a Consultation), *Shenbao*, 1934, 314-280-6.

equipment and a returned medical student to appear in the same advertisement in *Shenbao*, due to the very low frequency of this kind of situation occurring.

The advertisements, or examples, of the arrival of Chinese-born doctors with experience of studying abroad, represented by radiologists, shows the transition to a valuation system for medical experts as a profession. Before Western medicine became ubiquitous in newspapers and in practice, the trustworthiest doctors were either apprentices of indigenous medical masters or they came from an illustrious medical family. In contrast, the image of a radiologist was created with specialist knowledge, technical qualifications and rich experience working with the latest equipment. Those Chinese medical students were shown to have graduated with high degrees and excellent scores from universities in the US, Europe and Japan, which not only proved they worked hard, but also shows the high national expectation of Chinese experts to win a place in the whole medical community.

### **'Tests' for Performance**

With the rising number of X-ray and surgical departments, as well as laboratories, hospitals took the increasing number of patients who had X-

rays and received surgery and blood tests as a core figure to evaluate a whole year's performance. Many large hospitals, such as Renji and Tongren, provided an annual report in *Shenbao* every year, highlighting the growing number of their patients due to the perceived effectiveness of advertising.

In 1922 X-rays were used over 1600 times and surgeries were performed over 4000 times in Tongren Hospital. Those figures gave the readers, or potential customers, an impression that the hospital was well equipped and widely trusted.<sup>258</sup> In the same year the Director of Renji Hospital reported in *Shenbao* that over 1000 X-ray films were produced. The X-ray machines were put into service from 1919 leading to significant achievements in diagnosis and treatment.<sup>259</sup>

The reports became more detailed as the first municipal government-led Health Campaign took place in 1928. As well as statistics about the numbers of patients, the reports further revealed the detailed results of diagnosis and treatment: the statistics of patients at different degrees of diseases and an analysis of patients' age, occupation and gender. For example, the Shanghai Tuberculosis Sanatorium was kept busy with a great number of patients, including thirty-five inpatients and 370 outpatients, eighty-six of whom had

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<sup>258</sup> Hu Tongren Yiyuan Nianbao (沪同仁医院年报 Shanghai Tongren Hospital Annual Report), *Shenbao*, 1922, 199-1110-2.

<sup>259</sup> Renji Yiyuan Nianhui Ji (仁济医院年会记 Renji Hospital Annual Meeting), *Shenbao*, 1922, 200-14-3.

X-rays taken. Two patients with pneumothorax (abnormal presence of air in the pleural cavity) were first accurately diagnosed by X-rays and then had surgery to remove their diaphragm nerves.<sup>260</sup><sup>261</sup> The terminology of symptoms and therapeutic methods appeared frequently and was widely spread in newspapers, with the intention of building an authoritative image for the advertised hospitals.

### **Decrypting the Adventure**

Advertisers had many other methods to make a Western doctor look more achievable for Chinese patients who were not familiar with seeking medical advice in a hospital. Hospitals would introduce how the experience would be seeing a Western doctor from the point of view of their patients. According to Huang Kewu's analysis on people's practice when suffering from an illness, most would try to treat themselves when feeling unwell according to their own medical knowledge. Medicine from home or pharmacies nearby would be their first choice. Visiting a hospital or clinic would only happen when the illness took a turn for the worse and traditional Chinese doctors had failed to

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<sup>260</sup> Shanghai Feibing Liaoyangyuan Zuijin Baogao (上海肺病疗养院最近报告), *Shenbao*, 1929, 256-194-1.

<sup>261</sup> A pulmonary cavity is a gas-filled area of the lung in the centre of a nodule or area of consolidation and may be clinically observed by use of plain chest radiography or computed tomography. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2292573/>, accessed on 19. 11.17.



improve their health.<sup>262</sup> One of the main reasons was a lack of understanding of, and trust in, the Western medical system, both administratively and pathologically. In his book 'Remaking "Patients"' Nianqun Yang repeatedly emphasised that a hospital, as a space, has a place where medical concepts, management models, medical devices and medical personnel compete for the right to speak in the medical world. For the patient group it was an unfamiliar space of fear and acceptance.<sup>263</sup> The picture below illustrates anti-church propaganda that was popular among people at that time. The picture compares a caesarean section to abdomen-opening and heart-digging, reflecting people's radical imagination about how missionaries and hospitals practice medicine. Therefore, many advertisements were found in the 1910s to give information about the instruction of the departmental systems in hospitals and the function of each type of medical equipment, in order to familiarise potential patients with foreign technologies.

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<sup>262</sup> Huang Kewu, 'Cong *Shenbao* Yiyao Guanggao Kan Minchu Shanghai de Yiliao Wenhua yu Shehui Shenghuo (1912 - 1926)' (从《申报》医药广告看民初上海的医疗文化与社会生活 *Medical Culture and Social Life in Early Republican Shanghai from Medical Advertisements in Shenbao, 1912-1926*), *Collection of Institute of Modern History*, 17 (1988), p. 177.

<sup>263</sup> Nianqun Yang, *Zaizao Bingren-Zhongxiyi Chongtuxia de Kongjian Zhengzhi (1832-1985)* (Remaking 'Patients': Space Politics under the Conflict Between Chinese and Western Medicine), (Beijing: Zhongguo Renmin Daxue Chubanshe, 2013).



Figure.3 Removal of Placenta (猪叫取胎图), 1891<sup>264</sup>

In 1916, in an advertisement from Doctor Tang Shiyi, rather than introducing his own clinic, he focused on explaining the different categories of Western medicine. He further listed the typical departments in a Western hospital in Shanghai. 'Chinese and Western medicine differs in their departmental systems and therapies. The departments under Western medicine are internal medicine, surgery, paediatrics, obstetrics, dentistry, otolaryngology, dermatology, sexually transmitted diseases, epidemic, psychiatry and X-ray departments.'<sup>265</sup> The diagnosing methods include listening to patients' descriptions about their illness to determine the causes and applying a

<sup>264</sup> Ping Su, *Yaoyan yu Jindai Jiaoran* (Rumours and Modern Missionary cases), (Shanghai: Shanghai Yuandong Chubanshe, 2001), p. 209.

<sup>265</sup> Chinese medicine was divided into branches in the same advertisement, such as pulse-feeling, pediatrics, traumatology, cypridopathy, paralysis, ophthalmology, laryngology, acupuncture, naprapathy and charms.

microscope, pulse-watch, thermometer, or lung capacity meter to explore the root causes. If medicine could not meet the expectation, injection, hydrotherapy, aero therapy, aliment therapy and many other hygienic therapies would intervene for the eradication of diseases.<sup>266</sup> The list and descriptions of equipment were originally written in a story of a doctor in the late Qing's Shanghai who was boasting about his proficiency in both Western and Chinese medicine.<sup>267</sup> Showing off his novel Western equipment had become one of the doctor's gimmicks.

The experience of seeing a doctor in hospital was recounted in ebullient letters of thanks from patients, which were often produced by the hospitals themselves for use in their advertisements. The advertisement below provides readers with a very specific description of a procedure:

My wife suddenly got acute gastroenteritis at 8pm on 2<sup>nd</sup> July suffering from diarrhoea and vomiting. She was on the verge of death with cold limbs, retracted eyes and black nails. My relatives rushed to the Municipal Isolation Hospital for help. Thanks to the hospital's sleeping car, she was sent to the hospital and brought out

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<sup>266</sup> Tongshiyi Yisheng Guanggao, *Shenbao*, 1916, 278-142-1.

<sup>267</sup> Xu Ke, *Qingbai Leichao* (清稗类钞 Qing Barnyard Banknotes), (Beijing: Zhonghua Book Company, 1984), pp. 4170-71.

of danger after two surgeries by Dr. Keshi, Dr. Hengside, Dr. Elisheng and Dr. Wang Peiyuan.<sup>268</sup>

Thanks to the condolences from the comptroller's office and hospital pharmacy thoughtful service from the servant-maids, she was able to enjoy the 'clean eating' and was even reluctant to leave.<sup>269</sup>

This letter showed the readers what they should do when requiring emergency medical treatment and the effective results they could receive from the surgery.

Ebullient letters were a common advertising format in *Shenbao*, in aiming to exaggerate the curative effect and make it convincing through the use of alleged personal testimonies. However, the authenticity of those letters was called into question by historians. In the above letter to the Municipal

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<sup>268</sup> Keshi, Stafford Mouritz Cox (1866-1925), an Irish doctor who came to China in 1900. See Zhang Shunian, 'Yi Fuqin Zhang Yuanji Xiansheng' (忆父亲张元济先生 In Memory of My Father, Mr. Zhang Yuanji), *Bianji Xuekan*, 1 (1994), p. 92. In 1907, Stafford was asked by Dr. Stanley, the Municipal Health Officer, to undertake the care and treatment of cholera patients admitted to the Municipal Isolation Hospital. See Cox, Stafford M., *Report on an Outbreak of Asiatic Cholera in Shanghai During the Summer of 1907* (Shanghai: Methodist Publishing House, 1909), p.5.

Dr. Hengside, Hans Thue, Medical Staff of Imperial Chinese Red Cross Society Hospital and the Municipal Isolation Hospital. See, *The Directory & Chronicle for China, Japan, Corea, Indo-China, Straits Settlements, Malay States, Sian, Netherlands India, Borneo, the Philippines* (Hongkong: Hongkong Daily Press Office, 1912), p. 893.

Dr Elisheng, Birger Olesen, Medical staff of Imperial Chinese Red Cross Society Hospital and the Municipal Isolation Hospital. See, *The Directory & Chronicle for China, Japan, Corea, Indo-China, Straits Settlements, Malay States, Sian, Netherlands India, Borneo, the Philippines* (Hongkong: Hongkong Daily Press Office, 1912), p. 893.

Dr. Wang Peiyuan, Medical Staff of Imperial Chinese Red Cross Society Hospital and the Municipal Isolation Hospital. See, *The Directory & Chronicle for China, Japan, Corea, Indo-China, Straits Settlements, Malay States, Sian, Netherlands India, Borneo, the Philippines* (Hongkong: Hongkong Daily Press Office, 1912), p. 893. He was China's delegate at the International Federation of Red Cross and Red Crescent Societies' conferences in 1919, 1920 and 1922. See Hongguo Hongshizhui Dashi Nianbiao, <http://www.wyredcross.org.cn/show.asp?id=119>, accessed on 21.02.2017.

<sup>269</sup> 'Jingxie Shiyi Yiyuan Entong Zaizao (时疫医院恩同再造 Reconstruction of the Epidemic Hospital Entong)', *Shenbao*, 1912, 118-453-4.

Isolation Hospital a clear flaw was that Dr. Elisheng died in 1911 due to overwork and illness while providing medical aid during the Wuchang Uprising. Flags were hung at half-mast in the Imperial Chinese Red Cross Hospital and its branches in honour of his dedication.<sup>270</sup> Therefore, it was impossible for Dr. Elisheng to help save a patient on 2 July 1912. The reason why his name was in the letter could be that his high reputation as ‘Shenyi’, which means ‘supernatural doctor’, would be a valuable intangible asset to his employer.

Another typical form of advertorials, providing information in the style of an editorial or objective journalistic article, was written in the name of famous writers and senior officials. Historian Zhang Zhongmin focused on distinguishing deceiving advertorials and exploring the personal connections between hack writers and advertisers. Their connection could be as friends, relatives, provincials or employees. Zhang summarized this kind of advertorial as a procedure of turning the writers’ symbolic capital and social capital into economic capital for themselves, their employers and the newspaper.<sup>271</sup> Nevertheless, in the case of medical equipment, those advertorials played an important role in popularising the new medical

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<sup>270</sup> ‘Honghui Mingyi Shishi (红会名义实施 Implemented in the Name of the Red Cross), *Minlibao* (民立报), 12.14.1911.

<sup>271</sup> Zhang Zhongmin, ‘Jindai Shanghai de Mingren Yiyao Guanggao - Yi Wenren Yuyao wei Zhongxin’, (近代上海的名人医药广告-以文人舆药为中心), pp. 153-162.

technology. However, the unreliability of those ebullient letters and recommendations have been criticised by doctors who saw through the many promoting tricks. Tufu pointed out that the description of medical products tended to be 'imaginative' and grotesque without foundation and he reminded the readers that the recommendation letters were just a way of making the groundless descriptions more believable.<sup>272</sup>

To sum up, the advertisements of medical equipment exhibit advertisers' observation of, and consideration for, potential customers, as well as their adaptation to the social environment. Firstly, medical equipment became more than an urgent need for treatment, and served as a product as part of the advertisers' description and readers' imagination of a modern lifestyle. It was a result of the process of building a modern nation and development of a consumer culture in Shanghai.<sup>273</sup> Secondly, people's attitudes towards modernity varied, due to different educational backgrounds, medical experiences and living environment. Therefore, two types of marketing strategies appeared in newspapers considering hospitals' own medical conditions and their patients' needs. On one hand, some advertisements encouraged potential customers to trust the new equipment and live the

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<sup>272</sup> Tufu, 'Beiping Yijie de Guai Xianxiang'(北平医界的怪现象), *Yixue Zhoukan* (医学周刊 *Medicine Weekly*), 6 (1932), p. 148. 'Tufu' is a pen name of a doctor from Beijing.

<sup>273</sup> On consumer culture, see Karl Gerth, *China Made: Consumer Culture and the Creation of the Nation*, (Harvard: Harvard University Asia Center, 2003).

modern life that was defined and described by the advertisers. On the other hand, other advertisements portrayed longer tested equipment for those who would rather be treated by a more familiar machine. However, neither of those two types of advertisements worked against the modernity or Western medicine in *Shenbao*, despite criticism of the imperfection of the equipment. Finally, the vigorous publicity regarding the Chinese returned students and their achievements abroad not only highlighted the experts employed by the hospitals, but also appealed to the national pride that was facing previous defeats by foreign powers.

### **Reporting Modernity**

The dissemination of the government's policies involved both medical institutes and the public's attention. Newspapers and other media had taken on more responsibilities during the Health Campaigns between 1928 and 1937 under the Nationalist regime's municipal projects.<sup>274</sup> Newspapers had become a loudspeaker for policy makers and medical institutes to the public.

Tuberculosis was considered the most dangerous 'killer' disease in Republican Shanghai. The number of deaths caused by tuberculosis was 1,063 in 1916, about 11% of all of the deaths of 9,646 Chinese citizens in

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<sup>274</sup> Isabella Jackson, *Shaping Modern Shanghai: Colonialism in China's Global City* (Cambridge: Cambridge University Press, 2017).

Shanghai in the same year.<sup>275</sup> The overall percentage of tuberculosis among the causes of death in the five reported metropolises (Nanjing, Shanghai, Hankou, Tianjin and Kangzhou) remained over 10% in the 1930s.<sup>276</sup> *Shenbao* had ungrudgingly devoted a large amount of space to the severe situation and participated in organising events for the anti-tuberculosis part of the municipal government's health campaigns. To some extent, social forces, including the media, charity groups, doctors and other enthusiastic individuals, had been helping implement part of the government's campaign of controlling tuberculosis.

Sean Hsiang-lin Lei viewed these non-government groups as the maker of tuberculosis's social meaning in a Chinese context. In the early Republican period tuberculosis was defined by the international medical science circle as a social disease caused by the notoriously unhealthy working environment and unbalanced diet of the working class. From the 1920s, when establishing the public health system, the government intentionally left out prevention of tuberculosis in view of the anticipated high cost of improving workers' eating and living conditions. Facing a negative attitude from the Nationalist Government social groups began to lead some anti-tuberculosis movements.

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<sup>275</sup> National Christian Council of China, *The Christian Occupation of China (1901 - 1920)*, (Beijing: China Social Sciences Press, 1985), p. 982.

<sup>276</sup> 'Geguo Laozheng Siwang Tongji' (各国痲症死亡统计 Statistics of Deaths from Tuberculosis in Various Countries), *Shenbao*, 1936, 338-578-4.



Medical experts tried to find a solution to the problem of minimising the damage caused by tuberculosis without the ability to improve people's financial and dietary conditions. The result was to frame tuberculosis as a 'family disease' rooted in the bad living habits and intimate relations within huge families, such as spitting everywhere and sharing food and beds.<sup>277</sup>

One of the main forces among those non-government groups was the National Anti-Tuberculosis Association of China (中国防痨协会) founded in 1933, largely supported by donations from distinguished individuals, enterprises and institutions.<sup>278</sup> However, in *Shenbao's* reports on the anti-tuberculosis events that were organised by this association as part of the health campaigns attention was indeed paid to the relatively overcrowded factories, stores and schools as major sites of contagion. The core of these events was to maximise people's knowledge about, and practical use of, X-ray examinations, including how the X-ray machines worked, based on the Western conception of prevention and treatment. After negotiation leaders from the national government, *Shenbao* and the newly expanded Hongqiao

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<sup>277</sup> Sean Hsiang-lin Lei, 'Xiguan Cheng Siwei: Xinshenghuo Yundong yu Feijiehe Fangzhi zhong de Lunli, Jiating yu Shenti' (习惯成思维: 新生活运动与肺结核防治中的伦理, 家庭与身体 Habits Become Thinking: New Life Movement and Ethics, Family and Body in Tuberculosis Prevention and Treatment), *Collection of Institute of Modern History*, 74 (2011), pp. 133-177.

<sup>278</sup> Yang Xiangyin, Xu Jianwei, 'Fanglao Jiu Guo: Zhongguo Fanglao Xiehui de Chengli ji Zaoqi Huodong (1933 - 1937)' (防痨救国: 中国防痨协会的成立及早期活动 Prevent Tuberculosis and Save the Country: the Early Period of the Anti-Tuberculosis Association), pp. 134-39.

Hospital worked out a scheme that would benefit the public as well as all three parties.<sup>279</sup>

In August 1936 examinations were carried out in the name of Collective X-ray Examinations (X 光集团检查), although individuals patients were accepted and encouraged. According to the *Shanghai Workers' Livelihood* published by the Shanghai Municipal Bureau of Social Affairs, in 1928 the average monthly expenditure of a household for living expenses in Shanghai was 37.86 Yuan, which roughly included food, rent, clothing, fuel and miscellaneous items. In 1929 the average monthly salary for the teachers in Shanghai municipal primary schools was 41.47 Yuan, which was barely enough to sustain a family's expenses.<sup>280</sup> In a survey of 628 primary school teachers in 1934, when their income was higher than the average level, more than half of the teachers had a habit of reading newspapers.<sup>281</sup> The survey showed that primary teachers were evidently an essential part of the newspaper reader circle who would further disseminate the information they received. Their protection from infectious diseases was also closely related to the health of primary school students and, at the same time, they

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<sup>279</sup> The Hongqiao Hospital was established in 1934 by Ding Huikang, who was also one of the major originators of the Anti-Tuberculosis Association of China.

<sup>280</sup> Edited by the Shanghai Municipal Bureau of Social Affairs, *Shanghaishi Shehiuju* (Shanghai Workers' Livelihood), 1934, p. 17.

<sup>281</sup> Zhuang Lu, *Shanghaishi Jiaoshi Keyu Shenghuo zhi Yanjiu* (A Study on Shanghai Teachers' Extracurricular Life), (Shanghai: Jiaoyu Bianyiguan, 1935), p. 43.

set an example for students. Therefore, they had become the main object of X-ray collective examinations.

On 2 August, a week before the official opening of the Collective X-ray Examinations, all teaching staff in elementary schools were informed by the Bureau of Education that they should have X-ray examinations at the Anti-Tuberculosis Association's clinic before the schools started.<sup>282</sup> In August the *Shenbao* Office and the Hongqiao Hospital jointly held a banquet to explain how these Collective Examinations would work. Sponsors, such as Du Yuesheng, and political figures, such as the mayor of Shanghai Wu Tiecheng, and representatives from the Bureau of Education and Public Health, Li Dachao and Wu Liande, were invited. The head of the Hongqiao Hospital, Ding Huikang, indicated the urgent need and importance of having an X-ray examination as early as possible according to his medical experience and knowledge. 'The sooner the disease is discovered, the higher the chances for survival over the years. In fact, many diseases, especially tuberculosis, do not cause much pain at the early stage. Almost all patients who came to our hospital have already lost treatment time. Only taking X-ray examinations rather than injection or auscultation while people consider themselves to be healthy is the ideal way to prevent and eradicate tuberculosis.' He then

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<sup>282</sup> 'Zhongguo Fanglao Xiehui Yong X Guangji Jiancha' (中国防痨协会用 X 光机检查 X-ray Machine Inspection by China Anti-tuberculosis Association), *Shenbao*, 1936, 343-46-7.

pointed out the contradiction between high demand and insufficient supply of X-ray equipment. Moreover, the high examination fee resulted in even lower accessibility.<sup>283</sup> It was encouraging to Ding that senior political figures were also involved in placing emphasis on the use of expensive Western medical equipment in combating tuberculosis. Regarding the politicians, their support not only demonstrated their devotion to the public good but also their embracing of ‘hygienic modernity’ and technological solutions to the problems of modern urban governance. *Shenbao*, which was believed to own the largest readership, became a transmitter of the government in the course of the Health Campaign.

However, in terms of practice, the activities were mostly conducted by *Shenbao* and the Hongqiao Hospital. The specific plan for the First Collective X-ray Examination was designed and executed by *Shenbao* and the Hongqiao Hospital. The Hongqiao Hospital was responsible for providing venues and the latest equipment, which was installed in the month before the event. ‘The hospital offers a low charge of one Yuan per person with the expectation of popularising this new service. The price is lower than that of any other hospital. Either individuals or groups are required to buy a registration card with personal information at the *Shenbao* Office Building,

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<sup>283</sup> ‘Hongqiao Liaoyangyuan Juxing Fanglao X Guang Jituan Jiancha’ (虹桥疗养院举行防痨 X 光集团检查 Hongqiao Nursing Home Holds Anti-tuberculosis X-ray Group Inspection), *Shenbao*, 1936, 343-250-3.

where they should make an appointment first to avoid the queue at the hospital. By collecting and analysing the basic information including occupation, residence, age and examination results of every participants, the government and the Association would be able to make effective public health policies focusing more on the hardest-hit area. The whole idea of this anti-tuberculosis event is in its infant stage and calls for wider participation as specimens'.<sup>284</sup> In order to mobilise the masses, the government published official announcements in newspapers and magazines stressing that X-ray examination was the only way to diagnosis Tuberculosis. By frequently stressing the safety and advancement, *Shenbao* was integral to the delivery of the latest medical methods.

The call for participation then went into detail and focused on explaining the functions and operation of X-ray machines. In the 14 August issue of *Shenbao* the announcement for the Second Collective X-ray Examinations provided an additional introduction to the new X-ray machine in the Hongqiao Hospital in plain language. 'All the safety equipment for our new imported X-ray machine is in good order. The fluorescent screen can make

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<sup>284</sup> Hongqiao Liaoyangyuan Juxing Fanglao X Guang Jituan Jiancha (虹桥疗养院举行防痨 X 光集团检查 Hongqiao Nursing Home Holds Anti-tuberculosis X-ray Group Inspection), *Shenbao*, 1936, 343-250-3.

one's heart and lungs visible to the largest extent, and the reflector enables the patient to see their own symptoms clearly.'<sup>285</sup>

The report stated that 47 participants were having heart and aorta problems without being aware of them. Pathologic changes had never been detected until X-ray images were taken. Regarding the results for different occupations, special attention was paid to teachers, 45% of whom were diagnosed as inactive pulmonary Tuberculosis patients. The comparison between genders showed a lower morbidity of females than males, which led to the conclusion that women's lives were not such a struggle.<sup>286</sup> The report insisted that early diagnosis was the most important aspect of preventing Tuberculosis. The following treatment required technology's modernisation and society's economisation. The Hongqiao Hospital matched itself to all the requirements by setting up a Second Tuberculosis Sanatorium, serving the masses with the most advanced equipment at the lowest price. Doctors who had graduated from the University of Berlin, University of Hamburg and Tongji University were invited to be hospital staff. <sup>287</sup> The

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<sup>285</sup> 'Shanghai Juxing Dierjie Fanglao X Guang Jituan Jiancha' (上海举行第二届防痨 X 光集团检查 Shanghai Holds the Second Anti-tuberculosis X-ray Group Inspection), *Shenbao*, 1936, 343-252-8.

<sup>286</sup> 'Fanglao X Guang Jituan Jiancha Shangyue Jiancha Tongji (防痨 X 光集团检查上月检查统计 Anti-tuberculosis X-ray Group Inspection Last Month Inspection Statistics)', *Shenbao*, 1936, 344-199-5.

<sup>287</sup> Fanglao X Guang Jituan Jiancha Shangyue Jiancha Tongji (防痨 X 光集团检查上月检查统计 Anti-tuberculosis X-ray Group Inspection Last Month Inspection Statistics), *Shenbao*, 1936, 344-199-5.

report eventually revealed its true identity as an advertisement for the Hongqiao Hospital.

*Shenbao* continuously published this sort of half report and half advertisement style article for the next few months. The report for the month before 12 December showed the situation was not optimistic.<sup>288</sup> The percentage of healthy participants was at a low of 24.1% when compared with the first month.

Facing the high incidence of Tuberculosis revealed by the examinations, the Anti-Tuberculosis Association added a new partner, namely the International Dispensary, which was one of the association's donors - to hold an Anti-Tuberculosis Exhibition on 15<sup>th</sup> December 1936 at the International Dispensary. The exhibition aimed at raising people's awareness of the damage of Tuberculosis and the importance of early diagnosis. The contents of the exhibition were announced in *Shenbao* and they were described as rich and various. The exhibits were in different forms, including panels with comparison charts of the mortality rates in different countries and regions, wall charts and booklets with hygiene knowledge and modelled organs with and without tuberculosis. The functions of microscopes,

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<sup>288</sup> X Guang Fanglao Jiancha Shangyue Jiancha Tongji (X 光防癆检查上月检查统计 X-ray Anti-tuberculosis Inspection Last Month Inspection Statistics), *Shenbao*, 1936, 347-303-9.

artificial pneumothorax and X-ray images were interpreted to show the advancement of Western equipment. Similar to the X-ray examinations, the exhibition also gained support from the officials who made speeches at the opening ceremony. The International Dispensary distributed coupons and free gifts to increase people's interest in the exhibition, as well as the company itself.<sup>289</sup>

The exhibition attracted more students than people of other occupations. The average size of the audience in the first week was around 30 people per day, according to the follow-up report on *Shenbao*. People showed a great interest in the operation of the artificial pneumothorax and observing tubercle bacillus under a microscope.<sup>290</sup>

With the cooperation of the Anti-Tuberculosis Association, the Hongqiao Hospital, the International Dispensary and *Shenbao*, 609 people had X-ray examinations during the half-year's media campaign from August 1936 to March 1937. 25.94% of them were diagnosed as having Tuberculosis.<sup>291</sup>

According to the continuous reports in *Shenbao*, it was the non-government groups and a few hospitals and pharmacies that identified the damage

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<sup>289</sup> Shanghai Fanglao Zhanlanhui zai Wuzhou Yaofang Kaimu (上海防癆展览会在五洲药房开幕 Shanghai Anti-tuberculosis Exhibition Opened in Wuzhou Pharmacy), *Shenbao*, 1936, 347-375-7.

<sup>290</sup> Shanghai Fanglao Zhanlanhui (上海防癆展览会 Shanghai Tuberculosis Exhibition), *Shenbao*, 1936, 347-584-10.

<sup>291</sup> Bannianlai X Guang Jituan Jiancha Baogao (半年来 X 光集团检查报告 X-Ray Group Inspection Report for the Past Six Months), *Shenbao*, 1937, 362-575-5.



caused by Tuberculosis, as well as the business opportunities of promoting Western treatment. They actively took on the role of anti-Tuberculosis leaders, while the government remained behind the scenes throughout the period to 1937. In relying on hospitals and newspapers for their equipment and publicity, the activities were more like commercial practices than public service provision. In the end it was a huge success, especially for the newly expanded Hongqiao Hospital (private hospital). The activities took place in the second month after its X-ray machine was put into use. The Collective X-ray Examinations would improve the utilisation rate of the new machine. As those activities were morally supported by the officials, the Hongqiao Hospital had become one of the authoritative places for lung disease treatment. For *Shenbao*, selling registration tickets also helped to enlarge its readership and influence.

However, it is unfair to define this series of events as solely commercial in purpose. By cooperating with the government, hospitals reported the examination results of infectious diseases to the government. More personal details of the participants, such as age, gender and occupation, were recorded, rather than only the number of Tuberculosis cases as was published in the 1920s. The structure of a half report and half advertisement for X-ray examinations showed the mass media's responsibility and the

enthusiasm to help the government to make effective public policies against Tuberculosis.

Hospitals' reports were the main source for the government to be aware of the most recent epidemic situation, and they created policies accordingly. However, different to hospitals, the government was aiming to have a better control of public health if economic and military powers permitted. The control was largely strengthened and centred by the Shanghai Puppet Government, especially as the Anti-Tuberculosis Association had to wind up its activities following the occupation of Japan in 1937.<sup>292</sup>

Ding Huikang, nevertheless, saw the limitation of the Hongqiao Hospital's capacity for reception and decided to call for other hospitals' contribution. On 15 April *Shenbao* published an article announcing the launch of the extended Movement and the specific measures, which were divided into nine sections. It was the first time that fighting against Tuberculosis was attached to people's responsibility for building a strong nation. The slogan for the movement was 'The day we succeed against tuberculosis, is the turning point when our revival happens'. As this suggested, an individual's decision on whether or not he or she would have the examination was not

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<sup>292</sup> Xiangyin Yang, Jianwei Xu, 'Fanglao Jiuguo: Zhongguo Fanglao Xiehui de Chengli ji Zaoqi Huodong (1933-1937)' (防痨救国: 中国防痨协会的成立及早期活动 Preventing tuberculosis and saving the country: the establishment and early activities of the China National Tuberculosis Association, 1933—1937), *Jiangnan Luntan* (江汉论坛), 9 (2013), pp. 134-9.

only a matter of disease prevention, but also an expression of patriotic sentiment. Some other features showing the enlargement of the movement are as follows.

Firstly, the X-ray examinations were no longer exclusively performed by the Hongqiao Hospital. Instead, eighteen hospitals all over Shanghai took part to provide an X-ray examination service. The service was free of charge for the first two weeks. Secondly, sputum was added to the list of free examinations. Thirdly, pharmacies all over Shanghai administered a series of preferential treatment during the two weeks. Fourthly, as well as the newspapers, radios were providing saturation coverage and mobilisation speeches. The opening ceremony was no longer held at the Hongqiao Hospital, but broadcast via the Xindu Radio to a wider audience.<sup>293</sup> Fifthly, the exhibition was held in the professional museum, Zhendan Museum, which belonged to the Zhendan University, rather than in certain pharmacies.<sup>294</sup> The two movements were able to run more smoothly and at a larger scale with the cooperation and efforts of *Shenbao* and the Hongqiao Hospital. Moreover, the movement also benefited from the development of the mass media, especially radio and museums, which enabled their preferential policies to reach a wider

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<sup>293</sup> Hu Shibajia Yiyuan Lianhe Juxing Mianfei X Guang Jiancha (沪市百家医院联合举行免费 X 光检查 Hundreds of Shanghai Hospitals Jointly Hold Free X-ray Examinations), *Shenbao*, 1941, 375-577-1.

<sup>294</sup> Hu Zhendan Bowuguan Weichangbing Zhanlan Huiji (沪市百家医院联合举行免费 X 光检查 Hundreds of Shanghai Hospitals Jointly Hold Free X-ray Examinations), *Shenbao*, 1942, 380-197-4.

audience. Finally, by connecting the purpose of X-ray examinations to the patriotism of the country, the movement was in favour of public opinion. To conclude, during the two Anti-Tuberculosis Movements a wider range of hospitals and the media took on more responsibilities and allocated a higher budget to promotional work to popularise their equipment and to demonstrate their political attitude.

It was in December 1941 when the Pacific War broke out that the Shanghai Puppet Government took over all hospitals in the International Settlement and the French Cession and medical work in Shanghai became rigidly controlled. Ding Huikang refused the new certificate for practice qualification issued by the government and was then forced to give up the Hongqiao Hospital to Xia Qichang, who was delegated by the government. Consequently, the Anti-Tuberculosis Movement was abandoned due to lack of leadership.<sup>295</sup>

However, the partnership between the Hongqiao Hospital and *Shenbao* remained unchanged. Reports showing the examination results were continuously published until 1947, and *Shenbao* was still selling examination and treatment certificates to participants at a price of 10 Yuan. Although no

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<sup>295</sup> Xiangyin Yang, Jianwei Xu, 'Fanglao Jiuguo: Zhongguo Fanglao Xiehui de Chengli ji Zaoqi Huodong (1933-1937)' (防癆救国: 中国防癆协会的成立及早期活动 Preventing tuberculosis and saving the country: the establishment and early activities of the China National Tuberculosis Association, 1933—1937), pp. 134-9.

particular anti-Tuberculosis event was organised after 1941 and the reports became a periodic work summary with an advertising purpose, the figures announced by the hospital were still valuable sources to get an idea of the prevalence of the disease. For example, among all of the 385 participants, 33.5% were diagnosed to be suffering from tuberculosis, which was nearly 10% higher than before the war.<sup>296</sup> The figure for the whole year after the war dropped to 24% of 2435 participants.<sup>297</sup>

From the organisers and contributors attempting to popularise the X-ray machines and other related equipment, such as microscopes, speculums and artificial pneumothorax, as well as the forms of reports, the ability and will of the government, the cooperation and tension between the government and non-government organisations can be tracked in *Shenbao's* reports and advertisements. Newspapers not only became a loudspeaker from policy makers and medical institutes to the public, but also played an important role in organising the events.

## Lecturing Modernity

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<sup>296</sup> 'Hongqiao Liaoyangyuan X Guang Jiancha ji Zhiliao Banyue Tongji' (虹桥疗养院 X 光检查机治疗半月统计 Half-month Statistics of X-ray Machine Treatment in Hongqiao Sanatorium), *Shenbao*, 1943, 383-437-5.

<sup>297</sup> 'Cong X Guang Jiancha Tongji Shuzi Kan Shanghai Yuanlai Shige Feilao Dushi - Cong X Guang Jiancha Shuzi Kan Shanghai' (从 X 光检查统计数字看上海原来是个肺癆都市-从 X 光检查数字看上海 Looking at Shanghai from X-ray statistics, it turned out to be a tuberculosis city-Looking at Shanghai from X-ray statistics), *Shenbao*, 1946, 388-331-8.

With regard to the popularisation of science and public discussions, *Shenbao* and other newspaper and magazines, such as *Dagongbao* and *Xinwenbao*, were the communication place for the public, hospitals and the government to have discussions on public health. *Xinwenbao* and *Shenbao* were the two most influential newspapers in Shanghai. Their sales in 1930 were 150,028 and 148,240 copies, respectively.<sup>298</sup> *Dagongbao* was the largest business newspaper in northern China. Intellectuals, politicians and business people were their primary readers. Although these readers belong to the upper-middle class and could not represent the general public, their influence and guiding function on others expanded the dissemination of information in the newspapers.<sup>299</sup> As well as having commercial purposes, there were columns disseminating medical news, discussing medical knowledge and also delivering reviews of individual experiences using medical equipment. In those magazines and pictorials aimed at the masses, vivid pictures and articles in plain language sometimes followed the latest discoveries and updates to make the medical terminology understandable and then the experts' opinions were acknowledged by the public. As well as news, information and discussions about equipment, the names of some medical

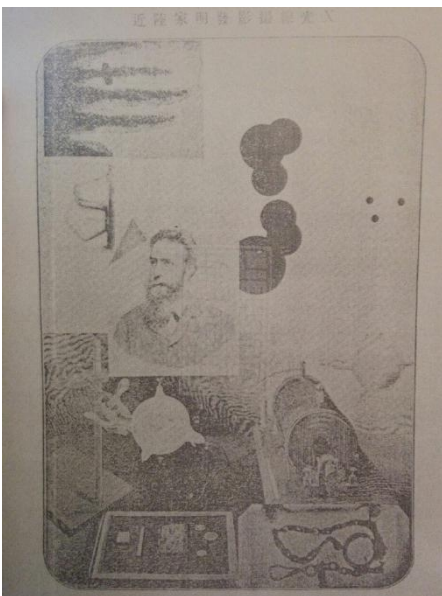
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<sup>298</sup> Hanqi Fang, *Zhongguo Xinwen Shiye Tongshi* (A History of Journalism in China), vol. 2, (Beijing: Zhongguo Renmin Daxue Chubanshe, 1996), p. 178.

<sup>299</sup> Qionglin Mei and Qian Zeng, 'Xiandaixing Yishi de Goujian: 1930 Niandai de Shanghai Baoye' (Constructing the Sense of Modernity: Shanghai Press in the 1930s), *Journal of Oriental Studies*, 06 (2006), pp. 123-66; Xiaohui Jia, *Dagongbao Xinlun -- 20 Shiji 30 Niandai Daogongbao yu Zhongguo Xiandaihua* (New Theory on *Dagongbao*-*Dagongbao* and China's Modernisation in the 1930s), (Tianjin: Tianjin Renmin Chubanshe, 2002).

objects were endowed with abstract meanings as synonyms of opinions concerning certain social and cultural situations.

Firstly, the dissemination of news and information about medical equipment was seen as being part of the dynamics of Western medicine. The Chinese media had shown enthusiasm when capturing the trends and innovations in medical science. As early as 1903 the discovery of X-ray photography was reported by several daily newspapers and magazines on popular science with brief explanations as well as pictures of the X-ray machines and photographs, which made this scientific development intelligible and attractive.<sup>300</sup> More frequent attention to subsequent events has been paid by a wider range of publishers and readers since then.



<sup>300</sup> 'X guang xian Sheying Famingjia Lujin' (X 光线摄影发明家卢金 Prof. Roentgen. The Discoverer of X-ray Photography), *Xinmin Ribao*, 35 (1903).

Figure 2. Prof. Roentgen. The Discoverer of X-ray Photography, 1903 <sup>301</sup>

Another example was the vacuum tube hearing aid device, produced in 1934. A report in the *Daoguang Weekly Newspaper* illustrated its operating principles and advantages in simple words: ‘The device was unnoticeable in the ear. With an elastic film amplifying sounds, which was collected by a receiver, most users can perceive and are satisfied with its effectiveness’. Two images of the device were displayed to show both the design and the appearance in the ear. <sup>302</sup>



Figure.4 Model of a Hearing Aid Device, 1934

Although it seemed difficult to prove the effectiveness of hearing aid devices, with the help of medical equipment the advertisers, and especially hospitals, were able to show their successful cases after treatment. An example was

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<sup>301</sup> X guang xian Sheying Famingjia Lujin (Prof. Roentgen. The Discoverer of X-ray Photography).

<sup>302</sup> ‘Longzhe Zhi You (聾者之友 A friend of the deaf)’, *Daoguang Weekly Newspaper*, 09.12.1934, p. 2.



two X-ray photographs before and after two months' of physical treatment in the Shanghai Tuberculosis Sanatorium. From the comparison, the photo of the left lung after treatment looked clearer than it was two months' previously, which meant a decrease in infection.<sup>303</sup>

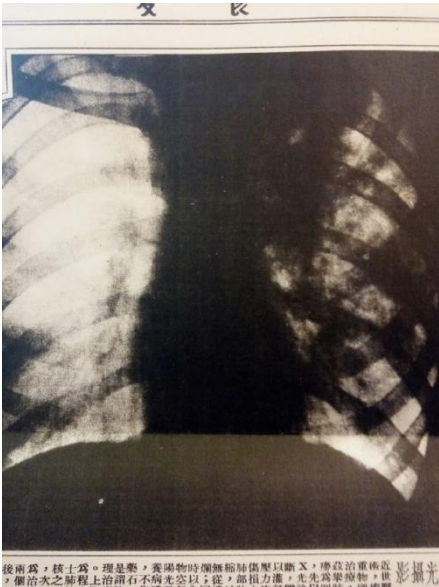


Figure 5. X-Ray Photograph of lungs affected by tuberculosis, 1931

<sup>303</sup> Feijiehe zhi X Guang Sheying (X-ray photograph of the lungs affected with tuberculosis), *Liangyou – introduce this publication too*, 55 (1931), pp. 36-37.

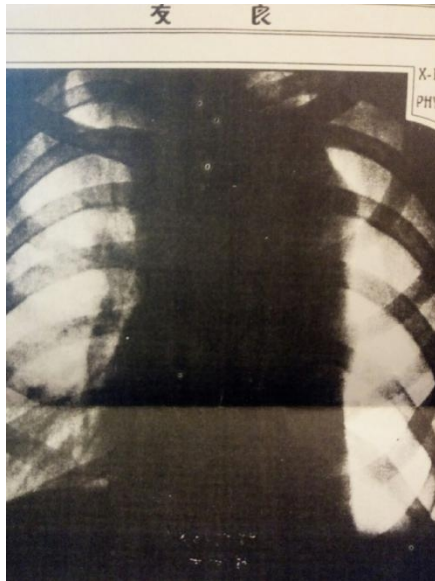


Figure 6. X-Ray Photograph of the lungs after two months' of physical treatment, 1931

As well as inserting images some real medical cases in hospital were also used as evidence to demonstrate the crucial functions of the medical equipment, as well as their ways of diagnosis and treatment. Giving a summary account of each case helps the reader to have a better idea of what equipment is expected to be used with a patient and what would be used to increase the accuracy of treatment afterwards. For example, a surgical knife was left in a patient's abdomen after an operation on appendicitis. After four years the knife showed up in the patient's X-ray and was taken out according to the position indicated by the X-ray result in the previous operation. One aspect to be noted is that, although the article focused on the success of the second surgery with the diagnosis by X-ray as a

remedial measure, it did not deliberately avoid mentioning the mistake in the appendicitis surgery that had left a knife in the patient's body, which made it more convincing.<sup>304</sup>

Secondly, in a larger context, the introduction of the latest medical equipment or the most recent invention often occupied a major space in an article demonstrating the new trends or the power of modern medicine. For example, an article entitled 'Modern Medicine and Energy Treatment' outlined the most recent achievement, which was equipment using helium, X-rays and ultraviolet radiation, in 1943.<sup>305</sup> However, the selected reports on the updated medical equipment did far more than only collecting and disseminating information, as they also reflected the influence of the social environment and the growing demand of the public in certain periods. Wars had been a constant theme throughout the history of the Republican period. Equipment that accommodated the wartime environment was presented to emphasise its important role and contribution. For example, the stories and images of soldiers being well treated sent from the frontline exhibited the great care taken by their governments. In a group of photographs in 1940's *Jinri Zhongguo* (今日中国 Today's China), injured soldiers were surrounded

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<sup>304</sup> 'Guanyu Yixue Shang de Jige Shizheng (关于医学上的几个实证 Various Evidence in the Field of Medicine)', 369 *Pictorial*, 6 (1940), p. 7.

<sup>305</sup> Translated by Lanf, 'Modern Medicine and Energy Treatment', 369 *Pictorial*, 10 (1943), pp. 5, 7.

by doctors performing operations and X-ray checks. Scenes of the patients playing chess, reading and attending discussions were also released to show their relaxed life after recovering from their injuries. The equipment included bone saws, surgery tools and a mobile X-ray unit, all of which were frequently used to deal with war injuries.<sup>306</sup>



Figure. 7 Bone Treatment, 1940



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<sup>306</sup> Shangbing Yiyuan (伤病医院 Relief and First aid), *Jinri Zhongguo* (今日中国 *Today's China*), 2(1940), p. 4.

Figure. 8 Operation, 1940

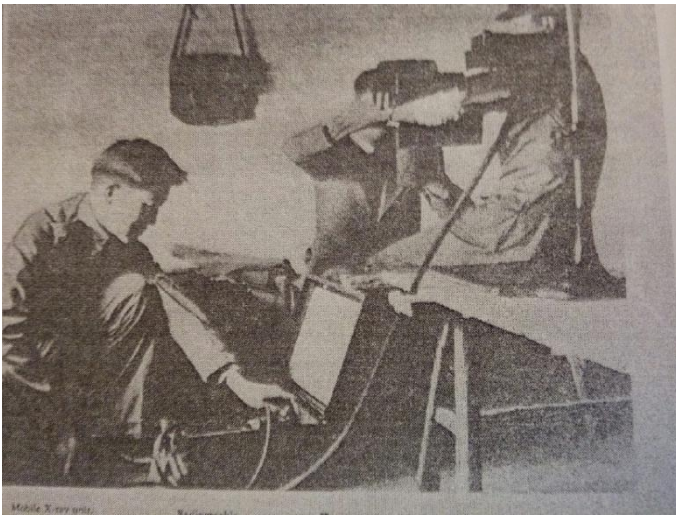


Figure. 9 Mobile X-ray Unit, 1940

The equipment developed to meet wartime needs would also sometimes reach into people's postwar life. An article in 1933 reported the process of scientists and doctors in China making improvements to portable X-rays and operating table outfits to fit them in trucks.

The Peking Union Medical College (P.U.M.C) Corps and the X-ray Department of the P.U.M.C evolved the idea of constructing a combined portable X-ray and operating table outfit, patterned after one of those used during World War I of 1914-1918. The outfit however was found to be not very practical nor suitable on account of its bulkiness. Later, instead of using a separate engine to run the dynamo to generate

current for the X-ray apparatus, they utilised the power takeoff of one of their Model BB Ford Trucks to run the dynamo. It makes a very compact and neat job, allowing plentiful space for the operating table and the X-ray apparatus to be mounted on the truck body itself.<sup>307</sup>

The article shows that the original idea of the combination of a portable X-ray and an operating table outfit was applied during the war and then converted, on the basis of Chinese hospitals' needs, for constant medical support, as well as for the practicalities of their car model.

As well as the political incidents and their influence, living conditions and styles could also be reflected and investigated with the participation of medical equipment in social commentaries. An article entitled 'Your Feet - Things You Should Know about Them' called for both men's and women's attention when wearing toe-pointed shoes and high heels, since those shoes would affect the growth and shape of their feet. The author used X-ray films of the foot of a 4-year old child and three abnormal feet caused by uncomfortable shoes as a comparison to show the damage caused by those fashionable shoes. In this case the X-ray films were not the selling point, but were used for providing proof to make suggestions for people dressing and

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<sup>307</sup> Chezai X guangji (车载 X 光机 The Combination of Portable X-ray and the Truck Body), *Gubeikou Huiyi* 古北口会议, 1933.



their health. However, the author did illustrate one of the most popular devices used in foot clinics in New York to show the treatment for deformed feet.<sup>308</sup>



Figure. 10 X-ray of the Foot of a 4-year Old Child, 1934



Figure. 11 Foot Damaged by Toe-Pointed Shoes, 1934

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<sup>308</sup> Meige Qingnian Suo Gai Zhuyi de Zu (每个青年所该注意的足 Your Feet: Things You should Know about Them), *Xinshenghuo Zhoukan* (新生活周刊 *New Life Weekly*), 1 (1934), p. 30.

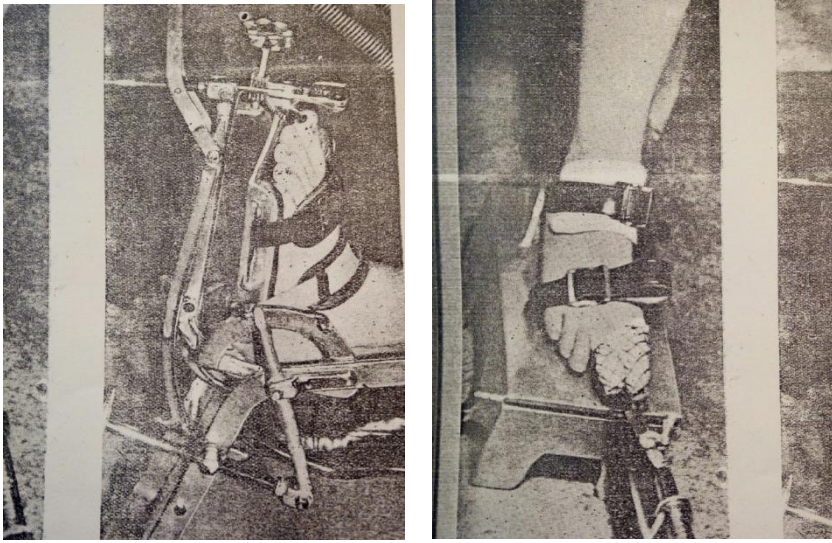


Figure. 12 Devices Used in Foot Clinics in New York City, 1934

From the information above it can be seen that, sometimes, the function of the equipment was a tool to reveal some social phenomena. However, in many cases, the names of equipment embodied cultural meanings with people's impressions of their functions, which had even less connection with their medical purpose. People began to relate medical diagnosis to abstract principles. For example, some columns were named X-ray, microscope, magnifier and telescope, among which 'X-ray' referred to the ability of seeing through the appearance to the essence and 'microscope' showed the insight into social problems from small details. As early as 1915 a comic called the 'Official Faces Seen Through X-ray Lens' was published in



*Yuxing*.<sup>309</sup> The column named ‘X-ray Lens’ in *Qingguang Magazine* was especially for social commentaries.<sup>310</sup> Moreover, there was an interesting short paragraph for questions and answers in the *Guangji Medical Newspaper*. The question was about who could see people’s bones as well as through X-rays and the answer was the literary authors who wrote poems and prose about women’s beauty with the flesh of ice and bones of jade.<sup>311</sup> All those phenomena are evidence that the names and properties of pieces of medical equipment had been widely recognised by both the media and the public and were reaching into people’s everyday lives through their language and daily dialogues.

Thirdly, medical equipment was displayed by the media as a part of the operation of modern hospitals and a part of the experience of modern life. In a group of images in the magazine *Feature*, both female patients’ and midwives’ activities in Zhongde Midwifery Hospital were captured by the photographer. The images recorded scenes of women using a sphygmomanometer (an instrument for measuring blood pressure), an obstetric stethoscope, a microscope, delivery tools and a thermometer. The

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<sup>309</sup> X Guangjing Zhong Kuijian Zhi Guanxiang (X 光镜中窥见之官像 The Official Faces Seen Through X-ray Lens), *Yuxing*, 1915, p. 7.

<sup>310</sup> X Guangjing: Xinwen Jizhe Zhi Yueyue (X 光镜：新闻记者之曰曰 X-ray Lens: News Reporters’ Words), *Qingguang Magazine*, 4 (1923), p.4.

<sup>311</sup> Huaji Wenda (滑稽问答 Funny Questions and Answers), *Guangji Yibao* (广济医报 Guangji Medical Newspaper), 6 (1921), p. 4.

article claimed that both the complete set of modern equipment and the procedure of disinfection made the deliveries safe and sound.<sup>312</sup>



Figure. 13 Scenes of Using a Sphygmomanometer and Microscope, 1937

Fourthly, discussions were not only about the role of medical equipment in the scientific world and in hospitals, but also about the existing ways of promoting and using it. This kind of discussion was often published in the form of reviews from the users, being both doctors and patients.

Some of the suggestions were from doctors to doctors, based on previous unfortunate experiences. One article in the *Feature Magazine* in 1937 was about the danger of injecting intravenous anaesthetic when performing neck surgery. It called for doctors to be cautious when they have to administer an

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<sup>312</sup> Anquan Jiasheng Zhi Buzhou (安全接生之步驟 Procedure of Safe Deliveries), *Jiaodian* (焦點 Feature), 1937, p.16.

injection.<sup>313</sup> However, this type of technical medical discussions more commonly appeared in professional literature.

In addition to the advice given by the experts, the printed media was also a major public space for readers to exchange ideas and make suggestions to hospitals and the government. Citizens could provide suggestions to the government in *Shenbao* to express their ideas on medical equipment. For example, a citizen named Xu Shufan made a proposal about organising free X-ray examinations for students and especially those in poorer families. The author saw many intelligent students who were infected with Tuberculosis and died at a young age, due to their crowded studying environment. He saw this as a huge loss to the future of the nation. He, therefore, put forward five suggestions to solve the problem. First, the Bureau of Education and Public Health could strictly implement examinations for at least high school and university students. Second, all hospitals, lung doctors and health authorities and X-ray machines could take part in the events and provide free services. Third, the students diagnosed as suffering from Tuberculosis must follow doctors' advice and receive treatment either in hospital or at home. Fourth, hiring could take place of some doctors to specifically take care of patients in the cultural process. Fifth, the examinations could take place once per term

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<sup>313</sup> 'Yong Mazuiji Gezhi Jingbu' (用麻醉剂搁至颈部 Put Anesthetic to the Neck), *Shenbao*, 1925, 209-275-1.

to prevent an 'attack' at any time.<sup>314</sup> Although no response from the government was found, *Shenbao* displayed an encouraging attitude to the consciousness of citizenship.

Children's own voices were also heard in the media. In 1946 'The New Children Magazine', a diary written by a middle school student called Yang Chunren, carefully recorded his visit to an X-ray room. He described his experience with an X-ray machine and explained how to analyse an X-ray photo. While the above 'review' from Yang Chunren looked suspiciously like an advertisement to promote X-ray examinations, the next example was relatively more vivid and reliable about the author's experience of visiting a hospital. The author had made an appointment for an X-ray examination on the Saturday but was concerned about being hurt by the strong light from X-rays that would go through her skin. Therefore, she prayed that Saturday would come slowly. When she arrived at the hospital early in the morning she was asked to wait and was nervous. While waiting for the doctor's call she witnessed a poor woman and her daughter being brusquely rejected and laughed at by the hospital staff because they were several minutes' late for a half-price X-ray examination. On the contrary, a young couple that had bought the special registration copper went into the consulting room ahead

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<sup>314</sup> Quanshi Xuesheng Pubian X Guang Jiancha zhi Jianyi(全市学生普遍 X 光检查之建议 Recommendations for General X-ray Examinations among Students in the City), *Shenbao*, 1943, 383-664-5.

of all the other people who had been waiting for hours. The author expressed her sympathy to the mother and daughter and was surprised how money could make such a difference between people in the same hospital. After her examination she laughed about her unnecessary concern about being hurt by the X-ray and thought deeper about the expression 'Money talks'.<sup>315</sup> Although it was a review with subjective feelings, her experience showed two points. One is that there were concerns about medical equipment, for example an X-ray machine, among people and especially those with little previous experience. The other point is that a social hierarchy among patients did exist in hospitals, and this concerned some observers.

Critics of unprofessional conduct in the medical field were not only among patients but also among doctors. A doctor signed as 'Tufu' lashed out over the false propaganda in medical advertisements that baselessly claimed their medicine no matter traditional or synthetic as panacea. He also attacked Doctor Wang Ruoyan's suggestion that it was not worth spending much money on X-ray examinations for ordinary people and a qualified doctor should have the ability to diagnose without the help of an X-ray. 'Tufu' stressed the importance of examinations for pre-clinical abnormalities,

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<sup>315</sup> Zhao X Guang de Qianhou (照 X 光的前后 Before and After my X-ray examination), *Shenbao*, 9.6.1934.

which could not be detected by doctors without them seeing the inner body images from x-ray films.<sup>316</sup>

Reviews, discussions and arguments from patients, doctors and ordinary readers who had thoughts and experiences about this equipment either in hospitals or at home provided a more diverse picture of people's outlook on modern or Western medicine. Among patients concerns about safety and pain did exist. Moreover, which hospital a patient chose to go to, which type of equipment for diagnosis and treatment a patient could afford and how fast the patient could get access to the equipment differed, due to the patients' educational background and, most importantly, financial circumstances. Among doctors the role this equipment should play in the doctor's professional life was controversial. In other words, the criteria for a professional doctor differed depending on his or her relationship with the medical equipment. In some cases doctors stressed that ability to use medical equipment is the ability to keep pace with the latest development, which should be seen as professional and aspirant. Furthermore, some doctors expressed concern that doctors' reliability on medical equipment would damage their independent thinking.

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<sup>316</sup> Tu Fu, 'Beiping Yijie de Guai Xianxiang' (北平医界的怪现象 Strange Phenomena in Peking Medical), *Yixue Zhoukan* (医学周刊 Medicine Weekly), 6 (1932), pp. 147-49.

Finally, the medical columns gave suggestions and tips for everyday life and provided handmade equipment ideas for at home. An article introduced some tips to use an electric lamp for electrotherapy at home. The first medical function of the lamp was to relieve pain. Placing a heat lamp wrapped in a thick towel to the pain location could help relieve pain and inflammation. The patients were advised to adjust the heat by changing the bulbs according to their symptoms. The second function was to relieve frostbite or freezing injuries, which commonly occurred in children. It was said that the lamp treatment could replace medicine and sometimes the ultra violet lights.<sup>317</sup> In the *Women's Magazine*, a leading magazine for women during the New Culture Movement first published in 1915 in Shanghai, there were columns teaching women how to live a modern life at home. In one article, when a child had choked, the mother was advised to go to hospital and have an X-ray taken immediately. Then, the article showed a picture of a child's throat where a toy was stuck. Finally, it warned all mothers the put items carefully away. While medical equipment was changing and becoming part of people's home life, the definitions and range of medical equipment were altered and became blurred.

## Conclusion

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<sup>317</sup> Diandeng Yi Ke Yongwei Dianliao(电灯一颗用为电疗 One Electric Light is Used for Electrotherapy), *Shenbao*, 1925, 209-275-1.

The role that the media was playing in the promotion of Western medical equipment as material and cultural vehicles of modernity was significant. Especially for the Nationalist government of Shanghai, which aimed to create an image of an international metropolis, developing a public health system centered on Western medicine became a necessary task. The media was more than the connecting chains between two of the three basic aspects within the system, namely the authority, medical institutes and the public, as it also influenced public opinion. When facing a national crisis and the scourge of war and disease, newspapers such as *Shenbao* took on part of the responsibility to guard people's lives and also perceived this as an opportunity to build up a popular image among their readers. Popular magazines also contributed to this process and they had more space for articles and images. Over time they introduced information about medical equipment, not only in specific columns about scientific matters, but also in articles on everyday life. Although a very large part of the mass media's attitude towards medical science tended to be positive, there were still non-standard advertisements, as well as arguments and concerns about the effectiveness of medical equipment. However, all the heated discussions proved the media's active role in the construction of a modern public health



system, and perhaps also demonstrated its care for its readers and the development of its own city.

## **Chapter 4. Women and Medical Equipment during the Childbirth Hygiene**

### **Construction Movement**

The attitude towards fertility reflects the attitude towards the society itself. In contemporary Chinese society women's identity and gender equality are topics that feminists and sociologists have discussed in the media. In 2014 artist Zhou Wenjing immersed 12 female bodies made of plaster in red ink. The plaster body was dyed in red as a metaphor for blood and the female's menstrual period, reproduction, disease and injury. This work, 'Red Series N°3' (See Figure. 1), was exhibited in Beijing and it caused heated discussions about the pain women endured. Her presentation of women's pain and menstruation directly addressed the avoidance of these topics in daily life. This avoidance has a long history. In imperial Chinese culture extra corporeal haemorrhage and death were closely related: thus, the fear of death was added to women's daily physiological activities. At the same time menstruation and childbirth scenes were regarded in China, as they were in many other societies around the world, as filthy scenes and, hence, not taken seriously. It was not until the beginning of the Republic of China that, under the influence of the New Culture Movement, intellectuals began to openly discuss women's physiological needs as individuals, rather than merely their obligations as family members. Some female intellectuals

reflected on their own experiences and advocated a reform of the childbirth technology in the mass media. What was commendable was that these intellectuals exploring new selves and new regimes paid attention to distinguishing China's past and the Western experience and provided government reformers with a theoretical basis for reforms in childbirth.<sup>318</sup> Following the opening of Shanghai in 1843 women's medical institutes included obstetric hospitals, maternity and children's hospitals, and obstetrics and gynaecology departments in general hospitals, which foreign churches had initially established before the republican period. For instance, the Renji Hospital was established by the London Christian Church in 1844 and the American Christian Church founded Tongren Hospital in 1867. Moreover, Ximen Women's and Children's Hospital, a specialist hospital for obstetrics and gynaecology, was founded by the American Women's Missionary Service in 1885. They became templates in the concession area for Chinese obstetrics and gynaecology institutions.<sup>319</sup>

After the Kuomintang came to power in 1927 the government decided to intervene in the reform of maternal and child health, due to the need for 'modernisation' and under the name of a 'Rich country strong race'. The

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<sup>318</sup> Joan Judge, 'Review of *Chinese Visions of Family and State, 1915-1953* by Susan L. Glosser', *China Review International*: vol. 11, no. 1, (2004), p. 92.

<sup>319</sup> 'Minguo Shiqi Shanghaishi Fuyou Weisheng Dangan Jianjie' (A Brief Introduction to Shanghai Maternal and Child Health Archives in the Republic of China), [https://www.archives.sh.cn/dazn/ztzn/201203/t20120313\\_5590.html](https://www.archives.sh.cn/dazn/ztzn/201203/t20120313_5590.html), accessed on 12.08.2012.

reform focused on eliminating the so-called 'notorious' old-style midwives during childbirth and using *xishi* (西式 Western-style) midwifery methods to reduce the maternal and infant mortality rate.<sup>320</sup> Childbirth, which was not initially considered a medical problem, began to be included in the public health system, and use of 'Western-style' midwifery services remains one of the labels of a woman as a qualified citizen today.

Therefore, in addition to reflecting the development of medical technology, the process of a woman's delivery can also be seen as a miniature synthesis of the social concepts of body, gender and family as the primary social units from a sociological perspective. This chapter will introduce the reform of childbirth hygiene in the Republic of China and explore the changes in the image and identity of women as patients, family members, citizens, childbirth service personnel, intellectuals, professional medical personnel and individuals, as well as the roles of women from all walks of life in this transformation. With women being consumers of childbirth services, their cognitive changes in body and identity are taken as the internal reasons for changing the childbirth methods and equipment in China.

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<sup>320</sup> Chunyan Zhou, 'Nüti yu Guozu: Qiangguo Qiangzhong yu Jindai Zhongguo de Funü Weisheng' (1895-1949) (女体与国族: 强国强种与近代中国的妇女卫生 (1895-1949) Women's Hygiene in Modern China (1895-1949)), PhD Thesis, National Chengchi University, Taiwan, 2008.



Figure. 1 The Red Series 《红色系列 N°3》, 2014 <sup>321</sup>

Due to a lack of access to the public sphere, women's cognition and behaviour regarding childbirth were mainly passed on from their female elders at home. Therefore, in imperial China for a long time the form of childbirth activities had been stable. Late Qing China saw an unprecedented interaction, active and passive, with foreign cultures, which brought in external factors for the introduction of 'Western midwifery'. Those factors included missionary and colonial activities, the rise of journals and newspapers and other mass media, medical students studying abroad, an increase in urbanisation and population mobility, the government's converted attitude towards foreign technology and the consumption culture built in big cities. They have enabled the Chinese to obtain more inspiration and choices in their self-perception and social construction. In entering the Republican period the channels mentioned above were particularly comprehensive in Shanghai, making Shanghai an important observation site

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<sup>321</sup> Wenjing Zhou, "Ta ba 300 ge Jieyuhuan Zhicheng Shoushi, Henmei Henbaoli" (她把 300 个节育环制作成首饰, 很美很“暴力” She Made 300 Birth Control Rings into Jewellery), <https://www.huxiu.com/article/365534.html>, accessed on 22/01/2021.

for the interaction between indigenous local culture and external influences. To conclude, this chapter will explore the changes in the delivery methods in Shanghai, focusing on female roles, influenced by both internal and external factors.

During the past few decades the modernisation of medicine and the role of women have been growing research topics in history. The innovation of childbirth technology has naturally hosted a disciplinary intersection for these two fields and, at the same time, it provides for an openness of women's discourse of their unique experience. The women's liberation movement set off with women's awakening being ignited in many countries. The localisation of gynaecology, closely related to women's well-being, was an essential part of this movement. Worldwide the combination of childbirth technology and biological sciences occurred between the 18th and early 20th centuries. In the research of different scholars on this period the reform of childbirth technology is promoted by the women's liberation movement and impacted by immigration, race, caste, politics, professionalisation, urbanisation and commerce.<sup>322</sup>

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<sup>322</sup> Charlotte G. Borst discusses the transition of male physicians replacing female midwives as attendants in America. By investigating immigrants and first-generation Americans, she finds both ethnic background and the growing respect for educated professionals were affecting women's choice between female midwives and male physicians. As a result, physicians who did not impose foreign values and even shared similar cultural values became highly in demand. See Charlotte G. Borst, *Catching Babies: The Professionalization of Childbirth, 1870-1920* (Cambridge, MA: Harvard University Press, 1995). On the other hand, Judith Walzer Leavitt focuses on the experience of middle- and upper-class

The study of childbirth reform in China has concentrated on the leading roles of the government, intellectuals and medical professionals. Tina Philips Johnson is a vital scholar who contributed to the research on obstetrics' professionalisation and institutionalisation in China. She investigated the first obstetrics schools and government public health systems centred in Beijing in the early 20th century.<sup>323</sup> Tina then expanded her vision to the modernisation of delivery technology in China and re-examined the semantics of modernisation, Westernisation and scientification in the Republic of China. She clarified that 'Western medicine' does not necessarily refer to medicine from the West. In the context of China at that time it should relate to 'modern medicine'. She used the terms 'modern midwife' and 'modern physician' to refer to those with systematic expertise in biomedical knowledge. Simultaneously, the term 'traditional midwife' refers to women with no scientific training who have relevant experience, whilst

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women in America from the eighteenth to the twentieth centuries. For these women, factors such as socioeconomic status and geographic location determined their autonomous rights in the birthing room. See Judith Walzer Leavitt, *Brought to Bed: Childbearing in America, 1750 to 1950*, (New York: Oxford University Press, 1986).

Adrian Wilson reveals how Tory and Whig's political conflicts brought obstetric tools such as the forceps and Vectis into public debates. Arguments over these instruments led to a compromise that women should make choices. While the informally trained female midwives were in danger of being replaced by male practitioners, pregnant women had benefited from their competition through actively making conscious choices. Meanwhile, a need for more female practitioners was raised. See Adrian Wilson, *The Making of Man-Midwifery: Childbirth in England, 1660-1770* (Cambridge, MA: Harvard University Press, 1995). Cecilia Van Hollen analyses in-depth the modernising process of reproductive practices, gender and biomedicine in South India, which is more comparable with Republican China. She reveals women's resistance to biomedical birth based on the discriminatory practices in medical services instead of conventional medicine itself. While the connections between new technologies and women's reproductive bodies are preached as the embodiment of modernity, women are ambivalent about this embodiment. In this case, women actively criticise their role of gender-, caste- and class-based subordination while accepting the biomedical instrument. Cecilia's vision draws academic attention to women's awareness of the hidden inequality among themselves during the appropriation of new technology, behind the flourishing images of modern identity. See Cecilia Van Hollen, *Birth on the Threshold: Childbirth and Modernity in South India* (Berkeley and Los Angeles: University of California Press, 2003).

<sup>323</sup> Tina Phillips Johnson, 'Yang Chongrui and the First National Midwifery School: Childbirth Reform in Early Twentieth-Century China', *Asian Medicine*, 4(2008), pp. 280-302.

the term 'retrained traditional midwives' refers to 'traditional midwives' who have received training organised by the government in the 1930s. She cautioned against using the word 'traditional' to generalise all indigenous midwives. While those midwives were regarded as the government's primary reforming targets during the Republican period, their image shifted.<sup>324</sup> Johnson's clarification of the frequently ambiguous concepts of 'Western', 'traditional' and 'modern' in the Republican context fits in well with biomedicine's localisation. Therefore, these definitions will be applied in this chapter to address the complexity of the childbirth reform.

The most detailed research on childbirth hygiene in Shanghai came from *Zhao Jing's Jindai Shanghai de Fenmiao Weisheng, 1927-1949* (近代上海的分娩卫生研究, 1927-1949; Childbirth Hygiene in Modern Shanghai, 1927-1949). Zhao Jing is a prominent pioneer researcher of modern Shanghai women's childbirth hygiene. Digging out and sorting many archives, newspapers, magazines and books, she carried out a comprehensive investigation of the birth and health administration, obstetric education, midwives and the medicalisation of childbirth in the Nationalists' Shanghai.<sup>325</sup> However, in considering the gaps between the Republican

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<sup>324</sup> Tina Phillips Johnson, *Childbirth in Republican China: Delivering modernity*, (Lanham, MD: Lexington Books, 2011).

<sup>325</sup> Jing Zhao, *Jindai Shanghai de Fenmiao Weisheng (1927-1949)* (近代上海的分娩卫生研究 Study on childbirth hygiene in modern Shanghai (1927-1949)), (Shanghai: Shanghai Lexicographical Publishing House, 2015).



reformers' rhetoric and reality, while this chapter refers to the valuable original data collected by Zhao Jing on policies and medical staff's professionalisation, the focus here is on both the passive and the active roles of women regarding these changes.

Despite such prominent work on the modern midwifery movement and its pivotal place in filling the remarkable disjuncture between traditional and contemporary childbirth practices revolving around the professional and social interests of medical professional and intellectuals, the female perspective remains underresearched.

Among the few scholars who focused on women's experiences and voices, Joan Judge's case study of *Funü shibao*, who were recruited as 'partners' and agents of the reform, discovered a 'parallel universe' where the everyday experiences of Chinese women related to marriage, childbirth, menstruation and revolution were captured in their own words. She also distinguished between the 'Republican Ladies', who were educators, reformers and activists, and the 'modern women' featured greatly in commercial magazines.<sup>326</sup> Although researchers of Republic of China publications are aware of the shortcomings of limited readership, leaving out the lives of the

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<sup>326</sup> Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press* (Berkeley: University of California Press, 2015).

majority of illiterate civilians, the value of research of those 'Republican Ladies', who created a female voice in public places in the field of gynaecology, is groundbreaking. Women began to participate in the process of becoming 'modern women' through their influence in childbirth reform under the complex background of nationalism, scientism and commercial propaganda. In referring to Judge's portrait of these female leaders, this chapter also pays attention to supplementing the consideration of ordinary families' choices and the fate of midwives, who were also women at the lower levels of society.

As the critical targets of childbirth reform, traditional midwives were often presented negatively as being ignorant during the Republican era. This negative image was neither born out of thin air nor was it precise. Scholars such as Charlotte Furth and Yi-Li Wu explored the complexity of midwives' capabilities in imperial China. Furth explained why, despite the widespread prejudice against low-status midwives, especially after the Ming Dynasty, female patients preferred them to male doctors.<sup>327</sup> Midwives were still one of the three categories of potentially dangerous outsider women who offered expertise to gentry households during childbirth, together with

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<sup>327</sup> Charlotte Furth, *A Flourishing Yin: Gender in China's Medical History, 960-1665* (Berkeley: University of California Press, 1999), pp. 168-72.

religious women and matchmakers, until the Republican period.<sup>328</sup> As Yi-Li Wu concluded, childbirth in most times and societies had been a strictly female affair, while men maintained a distance from the messy business in considering the pollution and distress it caused. Male experts may have been only summoned to prescribe drugs.<sup>329</sup> Both scholars' insights into the female and male roles during childbirth are important for this chapter's analysis of the inherent culture the 'modern childbirth' methods were facing and dismantling.

Finally, the primary sources used in this chapter to investigate the delivery traditions in the medical texts are *Furen Daquan Liangfang* (妇人大全良方 prescriptions for Women), *Simin Yueling* (四民月令 Monthly Ordinances for the Four Classes of People), *Yushi Beichan Jiyongfang* 虞氏备产济用方, *Ishinpō* (医心方 The Healing Arts) and *Taiping Yulan* (太平御览 Imperial Overview), which will be introduced in detail.

To conclude, although the above contributions to the field have provided a detailed context in which to re-examine women's roles and identities during the childbirth reform in the republican period, more effort is required in

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<sup>328</sup> Johanna Ransmeier, 'Inside the Home, Outside the Family: Wet Nurses in Republican China', *Nannü*, 17(2015), pp. 276-308.

<sup>329</sup> Yi-Li Wu, *Reproducing Women: Medicine, Metaphor, and Childbirth in Later Imperial China* (Berkeley: University of California Press, 2010). Francesca Bray, 'Review of *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China*', *Eighteenth-Century Studies*, vol. 46, 1 (2012), pp. 155-157.

relation to ordinary people's acceptance of modern childbirth equipment and methods. When trying to adjust the ways of daily life to shift the civil society's norms, the failure of policy efforts was mainly due to the superposition of daily conversations, everyday/local habits, and the application of tools and other subtle but shrouded factors that had been instilled in people's attitudes for a long time.

### **The 'body' between life and death**

In historical research attention to the female body mainly concentrated on the branch of gender history in social history and the branch of gynaecological history in the history of medicine. Many studies of the history of gender set out to explore how the female body became, existed and tried to get rid of the economic vassal status of the patriarchal society, and to restore various complex rights relations in the social context at the time from the perspective of women, as well as the ways women speak for themselves and what this means to them. Work that rethinks women's social roles from imperial China's feminine discourse include Dorothy Ko's *Teachers of the Inner Chambers*, Susan Mann's *Precious Records* and Grace Fong's *Herself an Author*.<sup>330</sup> These scholars used "the ability and will to take action

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<sup>330</sup> Dorothy Ko, *Teachers of the Inner Chambers: Women and Culture in Seventeenth-Century China*, (Stanford: Stanford University Press, 1994). Susan Mann, *Precious Records: Women in China's Long Eighteenth Century* (Stanford: Stanford

purposefully and self-consciously" to interpret female intellectuals' self-expression, subverting the one-sided narrative that women were utterly oppressed and silenced.<sup>331</sup> Compared with the recent history of gender, which used women's discourse as a breakthrough, the medical history of paying attention to the women's body, especially the parturient, has a long history.<sup>332</sup> These researchers traced the development of "medicine for women and childbirth" by exclusively investigating traditional Chinese medicine's general history. In other words they summarised Chinese gynaecological and obstetrical science and childbirth rituals, contributing a solid foundation for inspecting the changes entering the republican period. Pioneering work that successfully connected social history with medical history is Charlotte Furth's *A Flourishing Yin: Gender in China's Medical History: 960-1665*. She traced the tension existing between an androgynous body and a gendered childbearing body by analysing classical medical theory in the late imperial China, which influenced the aspect of whether or not

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University Press, 1997). Grace S. Fong, *Herself an Author: Gender, Agency, and Writing in Late Imperial China* (Honolulu: University of Hawai'i Press, 2008).

<sup>331</sup> Allan H. Barr, 'Reviewed of "*Herself an Author: Gender, Agency, and Writing in Late Imperial China* by Grace S. Fong"', *Nan Nü: Men Women, and Gender in China*, 12(2010), pp. 157-60.

<sup>332</sup> Angela Ki Che Leung, 'Recent Trends in the Study of Medicine for Women in Imperial China', *Nan Nü: Men Women, and Gender in China*, 7(2005), pp. 110-323; Guo Licheng, *Zhongguo Shengyu Lisu Kao* (中国生育礼俗考 Research on Chinese Childbirth Etiquette), (Taipei: Wenshizhe chubanshe, 1971); Ma Dazheng, *Zhongguo Fuchanke Fazhanshi* (中国妇产科发展史 History of Obstetrics and Gynecology in China), (Shanxi: Kexue Jiaoyu Chubanshe, 1991); Hsiung Ping-chen, *Youyou: Chuantong Zhongguo de Qiangbao Zhidao* (幼幼——传统中国的襁褓之道 Infant——the Traditional Chinese Way of Swaddling), (Taipei: Lianjing Chubangongsi, 1995); Zhang Zhibin, *Gudai Zhongyi Fuchanke Jibingshi* (古代中医妇产科疾病史 History of Obstetrics and Gynecology Diseases in Ancient Chinese Medicine), (Beijing: Zhongyi Guji Chubanshe, 2000); Yi-Li Wu, 'Ghost Fetuses, False Pregnancies, and the Parameters of Medical Uncertainty in Classical Chinese Gynecology,' *Nan Nü: Men, Women and Gender in Early and Imperial China*, 4.2(2002), pp. 170-206. Sabine Wilms, 'The Female Body in Medieval Chinese Medicine: A Translation and Interpretation of the 'Women's Recipes' in Sun Simiao's *Beiji Qianjin Yaofang*,' (PhD diss., University of Arizona, 2002, ), pp. 59-84.

women's bodies and illnesses should be treated separately from men's. As well as teasing out the imperial Chinese medical concepts of obstetrical and gynaecological diseases, Furth also constructively examined the division of labour among female patients, female healers, midwives and male doctors, and the clear hierarchy that underpinned their roles.

Rather than portraying an oversimplified model of oppressed women or an equally simple model of self-empowered intellectual females, Furth provided a detailed analysis of the classification and interaction of different identities among women from various backgrounds. Regardless of the fact that those identities were still initially classified by male builders of the social and medical order, such as the rising misogyny reinforced by what was represented as the buffoon midwife and other 'medical grannies' by male fictional writers, especially entering the Neo-Confucian period in the ninth century, women were no longer a 'collective' of victims in historical accounts.<sup>333</sup>

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<sup>333</sup> Pi-ching Hsu, "Review of *A Flourishing Yin: Gender in China's Medical History: 960-1665* by Charlotte Furth", *Journal of the History of Sexuality*, vol. 9, 3 (2000), pp. 362-5. For recent works on Neo-Confucian doctrines as regards women, see Susan Mann and Yu-Yin Cheng, ed., *Under Confucian Eyes: Writings on Gender in Chinese History*, (London: University of California Press, 2001); Bettine Birge, 'Women and Confucianism from Song to Ming: The Institutionalization of Patrilineality', *The Song-Yuan-Ming Transition in Chinese History* edited by Paul Jakob Smith Richard von Glahn (London: Harvard University Asia Center, 2003), pp. 212-40; Stephen C. Angle and Justin Tiwald, *Neo-Confucianism: A Philosophical Introduction*, (Cambridge: Polity, 2017); Elizabeth LaCouture, "Translating Domesticity in Chinese History and Historiography." *American Historical Review* (4), 2019, pp. 1278–89.

This research perspective centred on women is especially suitable for investigating women's bodies' unique encounters and physiological functions. From the perspective of historical analysis, and in practice, from the modernisation since the start of the Republic of China, shaping a new social meaning of the female body has become a lever for reformers to promote social change. China's efforts to promote modernity and nationalism involved a process of redefining and reshaping the overly sanctified bodies of its citizens, with a particular focus on the female body.<sup>334</sup> As well as the Chinese government's significant step in improving women's political status, the May Fourth Movement crossed over the big gap from liberating foot-binding to women's bound breasts.<sup>335</sup> However, on the basis that the "identity of women's body" was controlled by the politics of the body, economic status and traditional medical concepts, the new influencing factor during the Republic of China period was the intervention of Western medicine and technological equipment. As the focus of the reform of the

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<sup>334</sup> Shaoqian Zhang, 'Shaping the New Woman: The Dilemma of Shen in China's Republican Period', *Dao*, 17 (2018), p.410.

<sup>335</sup> On foot-binding, an early contribution is Howard S. Levy, *Chinese Footbinding: The History of a Curious Erotic Custom*, (London: Spearman, 1970). This book follows the traditional notion that footbinding was an aesthetic preference designed for women to please men. On the other hand, C. Fred Blake interprets foot-binding as the way women supported, participated in, and reflected on the Neo-Confucian way of being civilised. His argument reminds us that the body politic does not necessarily move towards releasing the 'pain' or pursuing the comfort of life, especially when individualism was empowered (if not overpowered) by the heroic notion of the 'state' and 'morality'. See C. Fred Blake, 'Foot-Binding in Neo-Confucian China and the Appropriation of Female Labor', *Signs*, vol. 19, No. 3, 1994, pp. 676-712. On the liberation of footbinding and women's bound breasts, see Garrick Harden and Chiung-fang Chang, 'Fashion and Freedom: A Textual Analysis of Chinese Women from 1911 to 2011' in *New Modern Chinese Women and Gender Politics: The Centennial of the End of the Qing Dynasty*, edited by Chen Ya-chen, (New York: Routledge, Taylor & Francis Group, 2014). Weicai Feng, Ruhe Shuxie Zhongguo Nüxing Shenti--Cong Chanzu Kaishi, (如何书写中国女性身体史——从缠足开始 How to Write the History of Chinese Women's body - Starting from footbinding), *21st Century Bimonthly*, 97 (2006), pp. 121-7.

Nationalist Government and the most concentrated area of various foreign cultures in China, the reform of the delivery methods in Shanghai is a typical research specimen of interaction of all of the above factors. Women's participation in the body consciousness culture created an image of the New Women in Shanghai from the 1920s.<sup>336</sup> Therefore, as the site of a new type of cosmopolitanism, republican Shanghai became a laboratory for change in women's bodily identity.<sup>337</sup>

As already demonstrated, the medical classics of the imperial period explain the female body, and the obstetric practice derived from it was constantly changing. In Chinese history the early Confucian moral model had been inherent in the Chinese political structure. In this model the body (身, *shēn*) was the key to mediation between heaven and humans. The body could generate knowledge through exercise, rather than becoming an object of knowledge and discipline. According to this standard everybody was divine and hierarchical. This had been the root cause of people's difficulty in accepting surgical operations. Regarding the late imperial medicine, the body was 'an infinitive body, one that serves as the basis for all human bodies, to

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<sup>336</sup> Carol Schmid, 'The 'New Woman', Gender Roles and Urban Modernism in Interwar Berlin and Shanghai', *Journal of International Women's Studies* vol. 15, no. 1 January 2014. pp.1-16.

<sup>337</sup> Sarah E. Stevens. "Figuring Modernity: The New Woman and the Modern Girl in Republican China," *NWSA Journal* 15. 3(2003), pp. 82-103.



be conjugated into male and female, young and old, robust and delicate, Southern and Northern, depending on circumstance'.<sup>338</sup>

Therefore, medical masters argued that pregnancy and childbearing were innately not pathological, and were supposed to be naturally easy, as long as the pregnant woman exercised care and was free from stress. The husbands, who were more likely to be educated, were responsible for guiding their wives in following medical advice.<sup>339</sup> As the birth of a healthy child, especially a son, was such a milestone for a family, the medical discourse was philogynistic or highly celebratory of the woman's role in delivering a son. A smooth delivery had become an affirmation of the woman's ability and effort to take on a central role in the family and the community. In the case of failure, however, the situation was completely different. If the mother died then the newborn child had survived but had lost his/her mother, the family had lost the house's mistress, the situation of the surviving children would become unstable and a low-income family might even lose their foundation of support. This problem affected both poor women and those in affluence since they could lose their lives or their bodies could be heavily damaged. It would be more devastating for most impoverished families who

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<sup>338</sup> Yi-Li Wu, *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China* (Berkeley: University of California Press, 2010), p. 232.

<sup>339</sup> Francesca Bray, 'Review of *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China* by Yi-Li Wu', *Eighteenth-Century Studies*, vol. 46, 1 (2012), pp. 155-7.

could struggle to take care of the mother's body after dystocia. If the mother survived but her child died, then the loss of the ten-month-old fetus (according to Chinese tradition following lunar months) would potentially destroy the mother's body and mind. Fetuses that died in the womb would affect the safety of the mother more.<sup>340</sup> This understanding of gestation as being naturally easy and lineage significant resulted in a heavy mental and physical onus for women to take on most of the responsibility for monitoring their body and emotions. Moreover, the high rate of infant and maternal mortality in China showed that Chinese women's deliveries were not that 'easy' having a rate of four times higher than the rate in European countries in the 1920s and 1930s.<sup>341</sup> Qu Jun, who wrote about reproductive issues in *Funü shibao*, estimated that 3,330,000 mothers and infants died during childbirth in 1926 in China.<sup>342</sup> The revealed discrepancy between idealised metaphysical cosmology and the harsh reality opened the door to the possibility of the Western delivering technology entering the orthodoxy. It was known that childbirth could result in a woman's life or death, impacting the mother's physical body and mental health, despite the ritual routines for

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<sup>340</sup> Jen-Der Lee, 'Childbirth in Early Imperial China', *Nan Nü*, vol. 7, (2) 2005, pp. 216-7.

<sup>341</sup> Yang Chongrui, 'Zhongguo fuying weisheng gongzuo zhi guoqu yu xianzai' (中国妇婴卫生工作之过去与现在 The past and present work of woman and infant health in China), *Zhonghua yixue zazhi* (1928), cited in Yao, *Kindai Chūgoku no shussan to kokka shakai*, p. 115; Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press* (Berkeley: University of California Press, 2015), p. 117.

<sup>342</sup> *Nüzi chanke xuexiao diyijie biye jinian ce* (女子产科学校第一届毕业纪念册 Yearbook of first graduating class of the Women's Obstetrical School) (1926), cited in Yao (*Kindai Chūgoku no shussan to kokka shakai*, 115); Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press*, p. 117.

comfort.<sup>343</sup> Simultaneously, the high maternal and infant mortality rates had prompted Chinese reformers to modify and regulate the pregnancy and childbirth process, driven by their concern about the national destiny. Yan Fu vigorously advocated late marriage and late childbearing, and restricted marriage. The income of an ordinary family was not sufficient to feed multiple children, and this could lead to insufficient nutrition and education for the children.<sup>344</sup> Pan Guangdan suggested that people with good physical and mental health should be the best candidates for marriage. He encouraged outstanding people in the society to have more children to optimise the race.<sup>345</sup>

At the same time overseas-trained Chinese medical students were making their way to the government's reforming centre of power.

### **The 'Delivery' with Worry and Fear**

Much of the lively records on childbirth in the imperial period were from literature. There was never a shortage of stories depicting dramatic scenes, which involved introducing a new protagonist and perhaps the death of a mistress. Hectic activities, conflicting conversations, anxious moods and

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<sup>343</sup> Jen-Der Lee, 'Childbirth in Early Imperial China', *Nan Nü*, vol. 7, 2 (2005), pp. 216-86.

<sup>344</sup> Yan Fu, 'Baozhong Yuyi' (Preserving the Race and the Remaining Meanings), *The Collection of Yan Fu*, vol. 1, pp.87-8.

<sup>345</sup> Pan Guangdan: 'Yousheng Gailun' (Introduction to Eugenics), *Pan Guangdan Collected Works*, vol. 1, (Beijing: Beijing University Press, 2000), p.261.

unpredictable results all provided elements that aroused both readers' and historians' appetite. However, one factor worth mentioning is that most of those records were observed and written by male writers. Accounts about the parturient's comments on the delivery experience were minimal, with all eyes being on the newborn baby.

Interestingly, the midwife (稳婆 *wěnpó*, 接生婆 *jiēshēngpó*, 吉祥姥姥 *jíxiángrǎolǎo*), being the significant attendant, gained more attention in republican literature. The primary common steps and the so-called traditional midwives' delivery tools summarised below came from medical texts and novels.

Medical texts produced in Imperial China advised treating the pregnant woman with special care, starting, especially, in the last month of pregnancy. No one should stop, leave traces or stay overnight in front of her house, and the medicines should be sufficient to prepare for childbirth.<sup>346</sup> Complex medicinal decoctions were suggested for different purposes. The *Taichanshu* (胎产书 Book for Childbirth) recommended using mole crickets to treat a

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<sup>346</sup> Wang Huaiyin ed., *Taiping Shenghuifang* (太平圣惠方) (reprint of the Song woodblock edition; Osaka: Oriento shubansha, 1991), vol. 76, no. 20-21; Chen Ziming's *Furen Daquan Liangfang* (妇人大全良方 Prescriptions for Women), (Beijing: Renmin weisheng chubanshe, 1985) vol. 16. Cited in Jen-Der Lee, 'Childbirth in Early Imperial China', *Nan Nü: Men*, vol. 7, i2 (2005), pp. 223-4.

retained placenta.<sup>347</sup> *Taiping Shenghuifang* (太平圣惠方 Taiping Holy Prescriptions for Universal Relief) suggested that pregnant women should use salvia paste to move the fetus forward and to make it slippery. Trifoliate orange powder was also recommended to help ease the birth.<sup>348</sup> In addition to medicinal prescriptions for a smooth labour, a *chanlu* (产庐 birth hut) was prepared in advance for the expectant mother at a carefully chosen location, where she might attract more fortune.<sup>349</sup> A *chanzhang* (产帐 birth tent) was prepared for the labouring woman to avoid the wind, whilst being away from the household.<sup>350</sup> Households would ideally have made as many preparations as they could for the expectant mother. Inevitably, both worry and fear were aroused once the labour started, when everything would be managed on the spot. According to *Ishinpō*, a labouring woman should give birth sitting on straw, in different directions depending on the different months, to avoid misfortune. At most, three attendants were permitted at the scene to help with the delivery. Thus, the most experienced acquaintances were preferable. As soon as the mother experienced pain, the

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<sup>347</sup> Cui Shi, *Simon Yueling* 四民月令 (Beijing: Nongye Chubanshe, 1981), pp. 103-77. Cited in Jen-Der Lee, 'Childbirth in Early Imperial China', *Nan Nü*, vol. 7, 2 (2005), pp. 224.

<sup>348</sup> Zhu Duanzhang, *Weisheng Jiabao Chanke Beiyao*, 2.24, quoted in *Yushi Beichan Jiyongfang* 虞氏备产济用方, *Weisheng Jiabao Chanke Beiyao*, 7. 95. Cited in Jen-Der Lee, 'Childbirth in Early Imperial China', *Nan Nü*, vol. 7, 2 (2005), pp. 226-7.

<sup>349</sup> *Ishinpō* (医心方 The Healing Arts), <http://www.cngdwx.com/xianqinlianghan/yixinfang/307231.html>, accessed on 18.03.2021. *Ishinpō* is the oldest surviving Japanese medical text, part of which is based on a few Chinese medical works. It was completed in CE 984 by Tamba Yasuyori.

<sup>350</sup> *Taiping Yulan* (太平御览 Imperial Overview), <https://ctext.org/text.pl?node=394896&if=gb>, accessed on 18.03.2021. *Taiping Yulan*, from the Taiping reign (976-983)" is the first extensive encyclopedia of ancient China.

attendants gave her all types of things to hold, such as sophora branches or the head of a cormorant. *Ishinpō* collected many coping methods for dystocia in medical classics, a large part of which were ritual rather than medical. For instance, when dystocia occurred, the household could cover its well with the father's coat, remove all the vessels' lids, touch the wine with hot metal and then make the mother drink it.<sup>351</sup> The husband's participation involved mainly assisting with the recipes, while the delivery was considered as the woman's responsibility, because of the so-called childbirth impurity and danger, which kept the husband at a distance. Moreover, one reason why it was suggested there should be no more than three female attendants was that death in childbirth was common in wealthy families and the attendants could become anxious quickly. Although some midwives were proficient in acupuncture and massage, and there was delivery knowledge among these caregivers, their female status and lowly origin were still deemed to be disdainful by doctors, which emphasised the monopoly of knowledge. There had been criticism from male doctors that the fear and worry demonstrated by these women would lead to more disorderly reactions.<sup>352</sup>

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<sup>351</sup> *Ishinpō* (医心方 The Healing Arts), <https://ctext.org/wiki.pl?if=gb&chapter=852149>, accessed on 18.03.2021.

<sup>352</sup> Pi-ching Hsu, 'Review of *A Flourishing Yin: Gender in China's Medical History, 960-1665*', *Journal of the History of Sexuality*, vol. 9, 3 (2000), p. 364.

Doctors' concerns and dissatisfaction were not only caused by differences in the social hierarchy, as the hurry-scurry of the attendants of pregnant women during dystocia was vividly portrayed in novels. Yongqin described a dystocia incident in Shanghai in "The Midwife Who Killed Without Blinking" (published in 1923 in the literary journal *Dongfang Xiaoshuo*) and recorded in detail the traditional delivery methods and tools of midwives:

"I saw the midwife use small steel scissors to cut open the area where the baby showed, whether it was flesh or skin. The pain was unbearable for the woman. The midwife took out two iron hooks to hook the baby's head and pulled it vigorously. It took about 30 minutes. The baby was finally pulled out. The mother had passed out. The accompanying family pulled her hair, pried her teeth and poured a bowl of warm soup into her mouth. The woman slowly woke up. The midwife used some dirty rags to wipe the place where the woman was bleeding. On the tenth day after delivery, the woman and the baby had both died."<sup>353</sup>

This was a typical article criticising the mainstream delivery methods in the 1920s and 1930s. Rough tools and techniques featured frequently in descriptions of childbirth. As the users of these tools, the traditional

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<sup>353</sup> Yongqin, 'Sharen Bu Zhayan de Chanpo' (杀人不眨眼的产婆 The Midwife Who Killed Without Blinking) *Dongfang Xiaoshuo*, 1 (1923), pp. 90-2.

midwives were deemed to be the creator of tragedies when things went wrong. Intellectuals, such as those in the New Culture Movement, believed that only by "eliminating" traditional midwives and replacing them with midwives with a "modern" medical education could the risk of maternal and infant death be reduced.

Regarding the updating of medical tools and their users, two crucial issues have been raised: the relationship between technology and intimacy, as well as the reshaping of women, especially midwives' image and identity, and the development of childbirth reform.

The concept of intimacy applied in this chapter is inspired by Francesca Bray's discussion of the role of technology in constructing bonds of perceived proximity and political economy. Rather than defining technologies as "advanced", "traditional" or "mixed", the analysis of intimacy implies "closeness or interdependence, an intertwining of human lives and experiences, replete with the tensions, contradictions and imbalances of power typical of any form of reciprocity".<sup>354</sup> This rich definition presents a universal human endeavour through a combination of material, social and symbolic practices. For an investigation of childbirth technology,

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<sup>354</sup> Francesca Bray, 'Constructing Intimacy: Technology, Family and Gender in East Asia, East Asian Science', *Technology and Society: an International Journal*, vol. 2, No. 2, 2008, pp. 151-65.



intimacy provides a more imaginative vision with the *shuren shehui* (熟人社会 acquaintance society surrounded by close relationships) challenged by professional space, the patriarchal society giving way to the civil society, class classifications re-organised by financial ability and knowledge, and the indigenous culture pushed into pluralism by the ocean currents of foreign waves. The transfer of delivery equipment from place to place has brought massive changes to social fabrics, such as genders, professions, families, medical spaces, media and the education system.<sup>355</sup> Regarding the experiences of childbirth, the tools and methods were the key factors in achieving a healthy outcome for both mother and child. As a result, the midwives who applied those techniques took the 'blame' when things went wrong and were regarded as being the main target of childbirth reform with the actual intention of promoting so-called modern technologies and civic life.

### **The Saviour or the Devil**

In the autobiographical novel "Beneath the Red Banner", Laoshe used retrospective and imaginative brushstrokes to vividly describe exciting

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<sup>355</sup> Edgerton's approach is also to consider how technologies are used in daily life, rather than the importance of its invention. He argues that technologies should be put within broader historical processes instead of merely a history of technology. David Edgerton, *The Shock of the Old: Technology and Global History since 1900*, (London: Profile Books, 2007), p. 211.

scenes of "himself" during his birth: "Grandma Bai sat cross-legged on the bed. The big copper basin (brought by my brother) alongside was filled with bitter water made from locust tree branches and mugwort leaves. The old ladies and daughters-in-law who participated in the ceremony added the basin first and put some copper money into the basin." In his work the traditional midwife's role in the community was to become the witness of newborns entering the family with her skillful rhetoric and manners. The family respected her in return.<sup>356</sup>

In combining the literature it can be concluded that the traditional midwives' responsibility revolved around fertility itself. They might have visited the expectant mother at the beginning of the final month to predict the sex of the baby and the pregnancy due date and, more importantly, to bless the house. Once the labour began, a midwife would be called to the house and she would actively manipulate the mother and infant with a massage and by positioning the mother. She would dress the umbilicus with ash or animal dung and bury the placenta after the baby was delivered successfully. Also after the birth she might have helped to prepare a feast for relatives and friends, bathe and dress the baby, and offer prayers. Sometimes midwives would participate in the ritual bathing ceremony on the third day after the

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<sup>356</sup> Laoshe, 'Beneath the Red Banner', see Shuji ed., *Laoshe Classic Novels*, vol. 4, (Beijing: Jiuzhou Press, 1995), p. 137.

birth, which is called Xisan (洗三).<sup>357</sup> In considering the midwives' duties and role it is difficult to relate those respected women with the 'devil' image created during the republican period.



Figure 2. *Fenmian Yuer Tu* (Bath Scene after Birth 分娩浴儿图)<sup>358</sup>

How were these traditional midwives who were busy travelling through the lanes gradually replaced by another group of people? How were they changed from being kind and dependable elderly in a community into evil perpetrators in public prints? What were their struggles with, and resistance to, the change? How did medical reformers and political forces align to achieve this change? All of these questions are worth exploring.

## Reproducing Reproduction

<sup>357</sup> Tina Phillips Johnson, *Childbirth in Republican China: Delivering modernity*, (Lanham, MD: Lexington Books, 2011), p. xiv.

<sup>358</sup> 'Bath Scene after Birth', Song Dynasty, discovered in Donghuang Buddhist Scripture Cave, <https://kknews.cc/baby/z3k62l3.html>, accessed on 20.03.2021.

The first change was when the midwife's profession began to be rejected by foreign female medical missionaries. The tools and methods applied by local midwives in China seemed implausible and dangerous in those missionaries' eyes. In 1901, when British doctor Mabel C. Poulter worked in Fuqing County, Fuzhou, she was surprised to find that the local midwives were middle-aged and older women with no medical knowledge, as they had not received medical training. Their long fingernails used to scratch the vagina and cervix, causing postpartum scars, stenosis (narrowing) of the birth canal and other complications arising from the injury, which were severe illnesses that were not easy to treat at the time. As a result, newborns often suffered from tetanus, with an infant mortality rate of 50%-70%.<sup>359</sup> In the preaching and practicing of medicine in China, the Western medical system, along with its medical and health knowledge, was introduced in China. In addition to establishing hospitals, medical schools were also set up to promote education for nurses, women and children, and midwives. In 1902 the female medical missionary Dr. Mary H. Fulton founded the Hackett Medical College for Women in Guangzhou, the capital city of Guangdong Province.<sup>360</sup> Together with its affiliated hospital, the David Gregg Hospital for Women and Children, it served as a medical center mainly to diagnose and treat

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<sup>359</sup> Deng Tietao, Fan Zhifan, ed., *A General History of Chinese Medicine (Modern Volume)*, (Beijing: Renmin Chubanshe, 2000), p. 416.

<sup>360</sup> On the Hackett Medical College, see Shing-ting Lin, 'The Female Hand: The Making of Western Medicine for Women in China, 1880s-1920s', PhD thesis, Columbia University, 2015.

women and children in their early stage. It not only provided beds in the school, but was also committed to the community, providing a free delivery service for the needy.<sup>361</sup>

Moreover, a small number of Chinese women studied medicine in Japan at a public or private expense, starting from the late Qing dynasty. Tokyo Women's Medical College (formerly Tokyo Women's Medical School) catered for the most significant number. Approximately 107 Chinese female students studied at Tokyo Women's Medical College between 1907 and 1946.<sup>362</sup> Until 1933 only 3,655 female doctors had studied abroad and trained in China. In considering the large population in China, the number of female doctors trained by the above-mentioned medical schools was very limited. However, the returning students played an essential role in various ministries and administrative departments in Shanghai promoting the Western-style medical education.<sup>363</sup> For instance, Yang Chongrui, a graduate of the Rockefeller Foundation-funded Peking Union Medical College's obstetrics/gynecology and public health programs, later joined the National

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<sup>361</sup> Zhou Chunyan, *Nüti yu Guozu: Qiangguo Qiangzhong yu Jindai Zhongguo de Funü Weisheng (1895-1949)* (女体与国族: 强国强种与近代中国的妇女卫生), (Gaoxiong: Liwen Cultural Group, 2010), p. 199.

<sup>362</sup> Yichuan Zhou, *Jindai Zhongguo Nüxing Riben Liuxueshi (1872-1945)* (近代中国女性日本留学史 (1872-1945) The History of Modern Chinese Women Studying in Japan (1872-1945)), (Beijing: Social Sciences Academic Press, 2007), p.220.

<sup>363</sup> Tao Shanmin, 'Zhongguo Nüzi Yixue Jiaoyu' (中国女子医学教育 Chinese Women's Medical Education), *National Medical Journal of China*, 6 (1933). For research on the medical industry's professionalism in republican China, see Xiaoqun Xu, *Chinese Professionals and the Republican State: The Rise of Professional Associations in Shanghai, 1912-1937* (Cambridge and New York: Cambridge University Press, 2000).

Midwifery Board and the government-sponsored First National Midwifery School. Together with Liu Ruiheng, a director of Peking Union Medical College Hospital who held a high public health post in the Nationalist government, Yang Chongrui provided a foundational contribution to the establishing of the midwifery industry.<sup>364</sup> Her creative teaching and management of the midwifery school, such as providing textbooks, modules, posters, teaching aids and practical kits, set an example for midwifery schools in other cities. Although white has the meaning of death in Chinese culture, no records show that people were resistant to white medical clothing. Rather, in the design of nurses' clothing, light blue shirts and white skirts were modified to make them elegant and light, attracting young women to join the nursing profession.

This newly founded system was never merely a transplant from another country, but was a combination of multinational experience with the intention to serve the local culture.

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<sup>364</sup> Wang Yong, 'Zhongguo Xiandai Zhuchan Jiaoyu de Dianji: Yangchongrui yu Beiping Guoli Diyi Zhuchan Xuexiao' (中国现代助产教育的奠基:杨崇瑞与北平国立第一助产学校 The foundation of modern midwifery education in China: Yang Chongrui and Peking National First Midwifery School), *Tianjin Journal of Nursing*, 6 (2014), pp. 484-7.



Figure 3. Testing the Blood Pressure of a Pregnant Woman in Peking National First Midwifery School in 1929 <sup>365</sup>



Figure 4. At the Peking National First Midwifery School midwives bring a kit to visit a pregnant woman's home in 1929. The kit was marked 'Visit Box for First Midwifery School'.<sup>366</sup>

<sup>365</sup> 'Lao Zhaopian: Minguo Guoli Diyi Zhuchan Xuexiao' (老照片：民国国立第一助产学校 Old photo: National First Midwifery School of the Republic of China), <https://kknews.cc/history/pebmlz.html>, accessed on 20.03.2021.

<sup>366</sup> 'Lao Zhaopian: Minguo Guoli Diyi Zhuchan Xuexiao' (老照片：民国国立第一助产学校 Old photo: National First Midwifery School of the Republic of China), <https://kknews.cc/history/pebmlz.html>, accessed on 20.03.2021.



Figure 5. The Kit and Tools Carried by the Midwives in 1929<sup>367</sup>

Compared with Beijing there were more midwifery schools in Shanghai, and most of them were affiliated schools of hospitals set up by various foreign institutions. As a result, the development style of the Western medicine in Shanghai had become more divergent. Some major midwifery schools that operated in Shanghai before 1937 are listed in the following table.<sup>368</sup>

Table 1: Major midwifery schools in Shanghai pre-1937

<sup>367</sup> 'Lao Zhaopian: Minguo Guoli Diyi Zhuchan Xuexiao' (老照片：民国国立第一助产学校 Old photo: National First Midwifery School of the Republic of China), <https://kknews.cc/history/pebmlz.html>, accessed on 20.03.2021.

<sup>368</sup> Vocational School, Shanghai Local Chronicles Office Website, <http://www.shtong.gov.cn/Newsite/node2/node2245/node76660/node76669/node76716/node76862/userobject1ai95799.html>, accessed on 20.03.2021.



| Name   | Established Year | Founder/ Superior institution                  |
|--|------------------|--|
| Private Renji Senior Nurse Vocational School<br><br>私立仁济高级护士职业学校 | 1894             | London Missionary Society,<br>Chinese Hospital |
| Guangren Senior Nurse Vocational School<br><br>广仁高级护士职业学校        | 1914             | The Episcopal Church                           |
| Renhe Senior Nurse Vocational School<br><br>人和高级助产职业学校           | 1917             | Xiangwen Zhang (Return student from the U.S.)  |
| Union Senior Nurse Vocational School                             | 1883             | A physician from the U.S.                      |

|  |      |   |
|--|------|---|
| 协和高级护士职业学校   |      |   |
| Bethel Vocational School for<br>Advanced Nurses<br><br>伯特利高级护士职业学校                           | 1920 | Bethel Mission, Shanghai<br><br>Bethel Hospital |
| Senior Nurse Vocational<br>School of Red Cross Society<br>of China<br><br>中国红十字会高级护士职<br>业学校 | 1921 | Red Cross Society of China                      |
| Tongde Advanced Midwifery<br>Vocational School<br><br>同德高级助产职业学校                             | 1924 | Chinesisch-Deutsche<br>Gesellschaft für Medizin |
| Sino-German Senior   | 1925 | Songyun Yu (A return student                    |

|   |      |  |
|---|------|--|
| Midwifery Vocational School<br><br>中德高级助产职业学校                 |      | from Germany)  |
| Dade Advanced Midwifery Vocational School<br><br>大德高级助产职业学校   | 1928 | Qingyue Tang (A graduate of the medical school of National Tongji University; the former name was the German Medical School) |
| Huisheng Senior Midwifery Vocational School<br><br>惠生高级助产职业学校 | 1929 | Shanghai Education Bureau  |
| Guangci Senior Nurse Vocational School<br><br>广慈高级护士职业学校      | 1932 | Catholic Church in France  |
| Sacred Heart Vocational                                       | 1935 | Catholic Church in France,   |

|  |      |   |
|--|------|---|
| School for Advanced Nurses<br>圣心高级护士职业学校                   |      | Aurora University   |
| Sang Sang Senior Midwifery Vocational School<br>生生高级助产职业学校 | 1933 | Jihua Xu (A return student from Germany); Shaoheng Qu 瞿绍衡 (A return student from Japan) |

An intriguing aspect is that most of the vocational schools were nursing schools in republican Shanghai, demonstrating women's and midwifery's crucial role in the professionalisation of the medicine process. These schools' teaching styles had strong foreign characteristics, but their influence went far beyond education and medicine.

In taking the midwifery schools with a German connection as an example, three midwifery schools, Zhongde, Dade and Tongde, worked very closely with their superior hospitals, which provided internship places for midwifery students and free delivery for pregnant women (except in cases of dystocia when payment was taken). The latest equipment allowed the students to

gain practical experience, reducing the cost for the hospitals.<sup>369</sup> In class these schools all adopted German as the language of instruction. Women applying to the Sino-German midwifery schools had to pass either an English or German proficiency test. At Tongde Midwifery School, in addition to using the medical manual prepared by the school staff in the first semester, only popular textbooks compiled by German medical scientists, such as Rudolf von Jaschke and August Rauber, were used. This teaching content arrangement taught German medical knowledge and made students develop the habit of paying attention to German medical journals and medical products. However, this seemingly "advanced" teaching method also had its drawbacks. It had created a sense of strangeness between midwives and their patients in practice, and the strict curriculum requirements and expensive tuition also led to a situation where more students dropped out than graduated in the first six years of its establishment.<sup>370</sup>

From a wider perspective the solid German connection did not make the faculty members and students incompatible with society. On the contrary, they, together with consultants and board members, formed a close network

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<sup>369</sup> 'The Variety of Obstetric Hospitals: Public and Private Aristocrats and Common People, From No Money to Gold Bars', *Haichao Weekly* (海潮), 31 (1946), p. 9.

<sup>370</sup> Henrike Rudolph, 'Xin nüxing yu Xiandai Yixue: Minguo Shanghai Zhuchanshi Peiyang de Deguo Yinsu' (新女性与现代医学：民国上海助产士培养的德国因素 The Allure of 'Germanness at Midwifery Schools in Republican Shanghai', *Journal of the Social History of Medicine and Health*, vol. 6, 2 (2019), [https://www.thepaper.cn/newsDetail\\_forward\\_6379093](https://www.thepaper.cn/newsDetail_forward_6379093), accessed on 26. 03.2021.

penetrating political and economic circles. Therefore, the members of this circle had increased their status among the Shanghai elite. Moreover, the 'German doctor' status also provided a channel for German medical products to enter the Chinese market.<sup>371</sup>

Given the high status of male doctors in the Qing Dynasty, the modern midwives had to gain public recognition during the Republican era. Moreover, a traditional midwife usually had personal experience of childbirth (she would be a woman who had given birth to more than one child). In contrast, the modern midwives who had graduated from the newly established medical school were young single women or childless women. Their professional authority was based on scientific knowledge rather than their own experience of giving birth.<sup>372</sup> Therefore, shaping a professional, amicable and reliable image by harnessing the growing mass media and the celebration in certain quarters of the 'modern woman' became necessary. The traditional midwives, as a result, were portrayed by advocates of Western medicine as having opposing characteristics and being backwards and archaic.

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<sup>371</sup> For the network of medical professionals, see Qian Yin, *Minguo Shiqi de Yishi Qunti Yanjiu* (民国时期的医师群体研究(1912-1937) - 以上海为讨论中心 Research on the Physician Group in the Republic of China (1912-1937)- Shanghai as the Discussion Center), (北京: 中国社会科学出版社, 2013).

<sup>372</sup> Henrike Rudolph, 'Xin nüxing yu Xiandai Yixue: Minguo Shanghai Zhuchanshi Peiyang de Deguo Yinsu' (新女性与现代医学: 民国上海助产士培养的德国因素 The Allure of 'Germanness at Midwifery Schools in Republican Shanghai').

## Delivering Voices and Giving Birth to New Roles

Neo-Confucianism endowed women with social functions centred on their fertility and their identity was subjected to patriarchal authority. Due to the series of failures in wars in the late Qing Dynasty, in comparison with Western countries, strengthening the state power and improving the Chinese race became eager demands. Women were depicted as being the chief culprits of the country's backwardness and the main targets of transformation in the construction of a modern nation. The cultural and political elite, such as Liang Qichao and Kang Youwei, viewed women's condition as a symbol of the modern nation's status.<sup>373</sup> Liang Qichao, for example, in his article, proposed that women should be good wives and wise mothers, which required them to help their husbands, educate their children, take care of the household and improve the Chinese race.<sup>374</sup>

During the New Cultural Movement the 'new woman' as the new gender category was defined by Hu Shi as a rational and independent thinker who did not believe in religion, rites and rules.<sup>375</sup> As the *New Youth* (新青年)

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<sup>373</sup> Gail Hershatter, *Women in China's Long Twentieth Century* (Berkeley: University of California Press, 2007), p. 80.

<sup>374</sup> Wang Fengxian, 'The 'Good Wife and Wise Mother as a Social Discourse of Gender', *Chinese Studies in History*, vol. 45, 4 (2012), p. 62.

<sup>375</sup> Hu Shi, 'Jieshao Woziji de Sixiang - Hushi Wenxuan Zixu' (介绍我自己的思想——《胡适文选》自序 An Introduction of My Thoughts), *Hushi Zuopin Ji* (胡适作品集 A Collection of Hushi's Work), vol. 18, p. 2320. On the 'New Women', see Hu Ying, *Tales of Translation: Composing the New Woman in China, 1898-1918*, (Stanford: Stanford University Press, 2000), p. 208.

opened an column on women in 1917, Western notions, such as hygiene, gynaecology, female education and marriage, were introduced by both male and female intellectuals, such as Chen Duxiu, Zhou Zuoren, Hu Shi, Liu Bannong, Lu Yin and Xiaohong. Those intellectuals proposed 'economic independence, freedom of love and equality between men and women', in aiming to challenge the vassal status of women in the family.<sup>376</sup> The pursuit of women's individualism did not satisfy the appetite of the government. However, in the long run, Chinese intellectuals' localisation of feminism theories from European and American countries became the fundamental theoretical basis of the later Chinese feminist movements.

The New Life Movement, launched in 1934, emphasised women's duty through the more traditional virtues of chastity and condemned the concepts of the educated 'modern girl' and the 'new woman' as being sexually promiscuous. Women should take both domestic and social responsibility by having a sense of propriety, justice, integrity and honour.<sup>377</sup> The New Life movement focused more on women's daily behavioural norms, such as concentrating on housework and parenting. Women and their bodies

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<sup>376</sup> Paul J. Bailey, *Women and Gender in Twentieth-Century China* (New York: Palgrave Macmillan, 2012), pp. 58-64; Susan Mann, *Gender and Sexuality in Modern Chinese History* (New York: Cambridge University Press, 2011), pp. 83-136. Naici Liu, 'Xiandaixing: Wusi Nüxing Xiaoshuo Yanjiu' (现代性: 五四女性小说研究 Modernity: A Study on May Fourth Novels), Master Thesis, Danjiang University, 2002.

<sup>377</sup> Tani E. Barlow, *The Question of Women in Chinese Feminism* (Durham, NC: Duke University Press, 2004), pp. 37-63; Norma Diamond, "Women under Kuomintang Rule: Variations of Feminine Mystique," *Modern China*, 1.1 (1975), pp.1-45; Louise Edwards, "Policing the Modern Woman in Republican China," *Modern China*, 26.2 (2000), pp. 115-147.



were bestowed with symbolic implications to serve the ideology of the state making.<sup>378</sup>

Furthermore, superstitious beliefs in spirits were also seen as contributing to the weakness of the Chinese nation.<sup>379</sup> The Nationalist government's rhetoric of modernity associated superstition with gender. The government asserted that educated men ought to be responsible for persuading their superstitious mothers and wives to turn to scientifically-trained doctors and midwives, instead of the traditional *sangu liupo* (三姑六婆 three aunties and six grannies), including nuns, fortunetellers, shamanistic healers, matchmakers and traditional midwives, who performed ritual activities during childbirth.<sup>380</sup>

Finally, the tools that traditional midwives had been using were under fire in detailed paragraphs, especially in 'progressive magazines (进步杂志), portraying a strong sense of violent pictures. An author publishing under the name "Xinsheng" claimed in *Nüqingnian Yuekan* (女青年月刊 *Female Youth Monthly*) that more than 99% of Shanghai births were in the hands of

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<sup>378</sup> Yi-Cheng Hung, 'Xinshenghuo Yundong yu Funü Zuzhi, 1934-1938', (New Life Movement and Organisation for Women 新生活运动与妇女组织 1934-1938), *Zhengda Shicui* (政大史粹), 13 (2007), p. 105-45. Hui-Chi Hsu, 'Guo Xinshenghuo, Zuo Xinnüxing: Xunzheng Shiqi Guomin Zhengfu dui Shidai Nüxing Xingxiang de Suzao', (过新生活、做新女性: 训政时期国民政府对时代女性形象的塑造), *Taida Wenshi Zhexuebao*, 62 (200), pp. 277-320.

<sup>379</sup> "Nümo (女魔 female demons)", *Zhongguo Ribao*, 19. 04 1904.

<sup>380</sup> Rebecca Nedostup, *Superstitious Regimes: Religion and the Politics of Chinese Modernity* (Cambridge, MA: Harvard University Asia Center, 2010), pp. 191-5; 212; 222-4.

traditional midwives who “did not know modern medicine”.<sup>381</sup> Xinsheng likened midwives in the 1930s going to deliver babies to: “butchers are going to slaughter pigs carrying knives and hooks. She went into the mother’s body with bare hands and fumbled. She thought she had touched the head of the fetus and pulled it out proudly. But with a terrible scream, it turned out to be the mother’s internal organ.”<sup>382</sup> On one hand, these literary works are contagious because of the sense of reality. On the other hand, the description is full of hatred towards traditional midwives. The *Nüqingnian Yuekan* was the core journal of the national agency of the Young Women’s Christian Association, founded in 1922. In addition to its Christian colour, the magazine created multiple images of women in families and in a civil society. Despite its progressive attitudes against traditions, it had a limited impact on social changes, since it presented a gap between the female theories imported from foreign countries and the reality of Chinese women.<sup>383</sup>

From the perspectives above, male policymakers and intellectuals made efforts to manipulate the changing perspective of women’s roles to revive the country in the direction of modernisation. A significant new element in

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<sup>381</sup> Xinsheng, ‘Wenpo Shouxia de Xishengzhe’ ( 稳婆手下的牺牲者 Victims of Wenpo), *Nüxing Qingnian* ( 女性青年 *Female Youth Monthly*), vol. 13, 9 (1934), pp. 57-8.

<sup>382</sup> Xinsheng, ‘Wenpo Shouxia de Xishengzhe’ ( 稳婆手下的牺牲者 Victims of Wenpo) pp. 57-8.

<sup>383</sup> Fangjing Wang, ‘Nüqingnian Zazhi dui Minguo Shiqi Nüxing Xingxiang de Suzao, 1927-1937’ ( 女青年杂志对民国时期女性形象的塑造 The Portrayal of Female Image by the Female Youth), Master Degree thesis, Northeast Normal University, 2018, p. 1.

reshaping women's identity as citizens, mothers and midwives was the growing number of female practitioners, such as Shen Fang and Liu Zhenglan, who disseminated obstetric knowledge, benefited from their unique educational background and persuaded women to choose midwives wisely for themselves, sharing their own experiences. Decisions on birth issues in the families of educated women were no longer guided by the husbands, but exuded a sense of self-determination and mutual assistance. The liberation of a minority of women through education in this period led them to consider wider possibilities for their lives, the existing inequality between genders and the power of making themselves heard.

The increasing number of women's magazines and journals provided an unprecedented platform for female writers and readers to engage in debates about reproductive health. *Funü shibao*, a popular newspaper with a peak circulation of six to seven thousand copies per issue sought to expand women's medical knowledge of intimate health concerns and defend criticisms against nurses and modern midwives.<sup>384</sup> Its editors looked to Japanese and German medicine for guidance in childbirth, such as what it described as the German 'painless, safe method of giving birth' and stories of

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<sup>384</sup> Renfeng Liu, 'Minguo Chunian Diyifen Shangban *Funü Shibao* Shengcun de Bianji Celüe', (民国初年第一份商办妇女刊物《妇女时报》生存的编辑策略 The Survival Editing Strategies of the First Commercially - Run Women's Journal '*Funü Shibao*' in the Early Years of the Republic of China), *Bianji Zhiyou* (编辑之友), 4 (2013), pp. 118-21.

women experiencing failed deliveries by traditional midwives in China and painless deliveries in Japan.<sup>385</sup> Starting by writing publicly about women's bodies, and discussing secretions, infections and menstruation, female writers challenged the stereotype of meek, modest and ignorant Chinese women who were scared to reveal their bodies.<sup>386</sup> Qu Jun and his wife Yingnai Yao, both influential obstetricians who had returned from study and practice in Japan, wrote a series of articles entitled 'Women's hygiene' for *Funü shibao*.<sup>387</sup> Although the publication reached only a small proportion of educated Chinese women, the articles represented a significant step towards establishing an informed, proactive and modern idea of childbirth. Debates between these practitioners and the ideas put forward provided a theoretical basis for policy formulation. Nevertheless, selective implementation of these new approaches required the government to standardise and legalise the status of midwives.

## Politicalising Childbirth Technology

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<sup>385</sup> Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press*, p. 118-9, 121-2.

<sup>386</sup> Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press* (Berkeley: University of California Press, 2015), p. 139.

<sup>387</sup> For female obstetricians and gynaecologists, see Chunyan Zhou, 'Zouchu Jinji -- Jindai Zhongguo Nüxing de Jingqi Weisheng (1895-1949)' (走出禁忌——近代中国女性的经期卫生 Walking out of Taboos - menstrual hygiene of modern Chinese women, 1895-1945), *The Journal of History, National Chengchi University*, 28 (2007), pp. 231-86; Joan Judge, 'Foreign Knowledge of Bodies: Japanese Sources, Western Science, and China's Republican Lady', from part III - Gendered Space and Global Context: Foreign Models, Circulating Concepts, and the Constitution of Female Subjectivities, in *Women and the Periodical Press in China's Long Twentieth Century*, edited by Michel Hockx, Joan Judge and Barbara Mittler, (Cambridge: Cambridge University Press, 2018), pp. 255-81.

The high rates of infant and maternal mortality in China had not only caused Chinese intellectuals to worry about the country's future, but had also stained China's international reputation. Lin Zhongda, an early childhood educator, compiled statistics on maternal mortality and found that the lowest maternal mortality rate in the world was in Denmark, where there was only two out of 1000 parturients, compared to 33 in Japan, 38 in the United Kingdom, 51 in Germany and 71 in the United States, while in China there were 176 deaths per 1000 women giving birth. This high rate of maternal mortality was, in his view, a crisis for both women and the entire Chinese race.<sup>388</sup>

To address the demand for "strengthening country and race" resulting from the sense of demographic crisis, maternal and child health care was formally promoted by the Nanjing Government and in 1928 the Nanjing Government established the Ministry of Health. According to a summary of its work published in 1941, the maternal and child health plan was divided into four aspects: training maternal and child health personnel, supervision and management of midwives and other maternal and child health personnel, establishing maternal and infant health care institutions and investigating

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<sup>388</sup> Zhongda Lin, 'Guonan zhong zhi Ertong Jiaoyang Wenti'(国难中之儿童教育问题 Children's Education in National Crisis), *Dongfang Zazhi* (东方杂志 Oriental Magazine), 7 (1932), p. 6.

the health issues of mothers and infants.<sup>389</sup> In 1929 the Ministry of Health began to oversee traditional midwives by decree and announced the ‘Early Implementation Plan of Municipal Health Administration’. This plan related mainly to training health personnel, health administration funds, medical administration management and healthcare preparations. Banning the traditional midwives was one significant task identified in the plan.<sup>390</sup> Beijing and Shanghai were both regarded as centers of this reform.

As Shanghai became a treaty port in 1843, foreign churches established medical institutions for women, including maternity and children’s hospitals and obstetrics and gynaecology departments in general hospitals. Renji Hospital, run by the London Missionary Society, Rongren Hospital, run by the The Episcopal Church and the first specialist hospital, the Margaret Williamson Hospital(西门妇孺医院) run by the Woman’s Union Missionary Society of America were some of the largest medical centers for pregnant women. The beginning of the 20<sup>th</sup> century witnessed the establishment of

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<sup>389</sup> Chongrui Yang, ‘Zhongguo Fuying Weisheng Gongzuo zhi Guoqu yu Xianzai’, (中国妇婴卫生工作之过去与现在 Past and Present of China’s Maternal and Infant Health Work), *Zhongguo Yixue Zazhi* (中国医学杂志 Chinese Medical Journal), vol. 27, 5 (1941), p. 283.

<sup>390</sup> Mingguang Chen, *Zhongguo Weisheng Fagui Shiliao Xuanbian (1912-1949)*, (中国卫生法规史料选编 Selected Compilation of Historical Materials on Chinese Health Laws and Regulation 1912-1949), (Shanghai: Shanghai Medical University Press, 1996), p. 118.

maternity hospitals run by Chinese physicians and by 1936 there were 50 private maternity hospitals in the city.<sup>391</sup>

Having the most hospitals in China, Shanghai had come to the forefront of China's exploration and regulation of midwifery. In terms of management and midwifery supervision, the Shanghai Municipal Health Bureau was one step ahead of the National Government. The management of midwives and the transformation of midwives had taken a tortuous path.

In 1927 the Shanghai Municipal Health Bureau promulgated the "Interim Regulations for the Management of *Chanpo* (Traditional midwives)," which stipulated that midwifery qualification examinations would be held every six months. Only those who passed would be given a license. Otherwise, they would not be allowed to start a business.<sup>392</sup>

Secondly, in facing the fact that the number of traditional midwives was overwhelmingly dominant and people generally trusted them, the Shanghai government carried out a reform of midwives in response to the "Regulations for Midwives" instructions issued by the Ministry of the Interior. In 1928 the Health Bureau cooperated with the Zhongde Midwife School to

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<sup>391</sup> Yanping Zhou, 'Minguo Shiqi Shanghaishi Fuyou Weisheng Dangan Jianjie', (民国时期上海市妇幼卫生档案简介 A Brief Introduction to Shanghai Maternal and Child Health Archives in the Republic of China), [http://www.archives.sh.cn/dazn/ztzn/201203/t20120313\\_5590.html](http://www.archives.sh.cn/dazn/ztzn/201203/t20120313_5590.html), accessed on 26.03.2021.

<sup>392</sup> Shanghai Municipal Archives (SMA), U1-16-304.

start a midwife training class.<sup>393</sup> The training team instructed the traditional midwives and taught them standard disinfection methods, such as washing hands, cutting the umbilical cord, discarding their embroidery scissors and dealing with broken bowls. Basic knowledge on bacterial infections was taught to raise the awareness of disinfection. Each training course lasted for three months and 50 or 60 students enrolled.<sup>394</sup> The intention was to ensure that the traditional midwives received some training in basic modern midwifery practice and hygienic standards.

The Shanghai Municipal Health Bureau stipulated that midwives participating in midwife training classes should, themselves, purchase the midwifery supplies for their internships. The birth basket was a necessary set of tools for trained midwives and the birth baskets used by Beijing trained midwives were recommended. The list of tools in the basket included: cloths (white cloth cover (front only) with two sets of cuffs, two pieces of cloth in the basket, two towels and one roll of sterilised yarn bandage); utensils (one pair of scissors and one dropper); devices (one delivery basket, three basins, one brush and one soap); medicines (boric acid for yeast infection, alcohol and

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<sup>393</sup> Songjun Yu, *Zhongde Gaoji Zhuchan Zhiye Xuexiao Shiwu Zhounian Jiniance*, (中德高级助产职业学校十五周年纪念册 The 15<sup>th</sup> Anniversary Book of Zhongde Senior Midwifery Vocational School, 1940), SMA, Q235-3-464, p. 2.

<sup>394</sup> Songjun Yu, *Zhongde Gaoji Zhuchan Zhiye Xuexiao Shiwu Zhounian Jiniance*, (中德高级助产职业学校十五周年纪念册 The 15<sup>th</sup> Anniversary Book of Zhongde Senior Midwifery Vocational School, 1940), SMA, Q235-3-464, p. 2.



silver nitrate for disinfection).<sup>395</sup> Some medical companies also launched obstetrics packages and kits. One of the advantages of the birth basket was that it considered the reality that many retrained midwives would be illiterate and, thus, graphical representation was provided with the products. Furthermore, a new trend in professional dressing was material symbols of the modern midwife, such as nurses' starched white uniforms and caps.<sup>396</sup>



Figure 6. Standard Medical Devices Corporation Birth Kit, 1948 <sup>398</sup>

<sup>395</sup> Mingguang Chen, *Zhongguo Weisheng Fagui Shiliao Xuanbian (1912-1949)*, (中国卫生法规史料选编 Selected Compilation of Historical Materials on Chinese Health Laws and Regulation 1912-1949), (Shanghai: Shanghai Medical University Press, 1996), p. 746-7. 'Weishengju Nishe Chanpo Xunlianban' (卫生局拟设产婆训练班 Health Bureau Plans to set up Midwife Training Classes), *Shenbao*, 10. 02.1930, p. 15.

<sup>396</sup> Tina Phillips Johnson, *Childbirth in Republican China: Delivering modernity*, (Lanham, MD: Lexington Books, 2011), p. 78.

<sup>398</sup> Kui Jin, 'Jieshengbao de Neirong' (接生包的内容 The Contents of the Delivery Kit 金奎), *Yichao*, 1948.10, pp. 14-15.

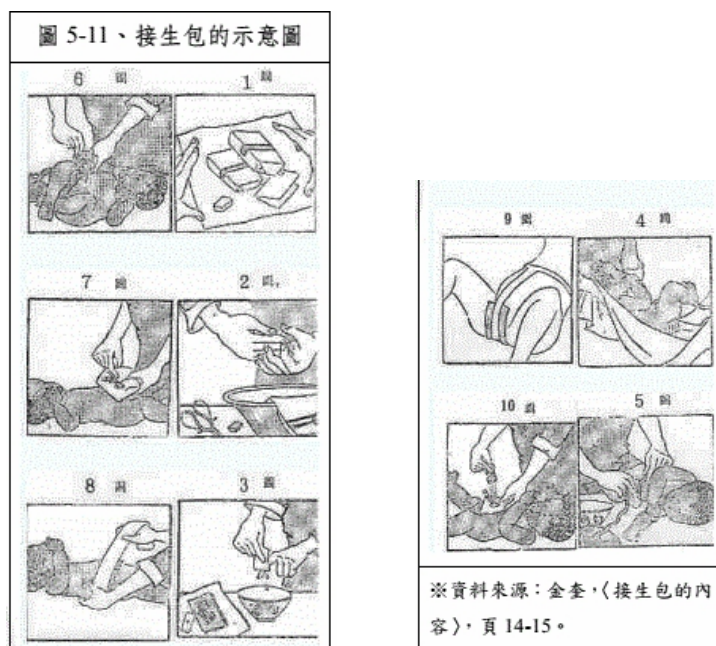


Figure 7. The Contents of the Delivery Kit and an Instruction, 1948<sup>399</sup>

As can be seen from the above measures the core tools required to be a so-called midwife had some similarities with those of traditional midwives. Scissors and hooks were used for the same purpose: to cut the umbilical cord and to remove the baby from the vagina of a woman who had died during childbirth. The main difference was whether or not the tools were sterilized, as disinfection could effectively reduce the risk of tetanus. Therefore, even though, on the surface, the tools were similar in type, they and their owners had different public images. Sterilised tools represented professional treatment while unsterilised tools were described as butchers' tools for

<sup>399</sup> Kui Jin, 'Jieshengbao de Neirong' (接生包的內容 The Contents of the Delivery Kit 金奎), *Yichao*, 1948.10, pp. 14-15.

murder. In this case, the embodiment of meanings of the same tools had been intertwined with their application methods. Moreover, the tools and their female operators formed each other's public image together. In addition to the well-equipped toolbox, the stiff white uniforms and crisp short hair formed contrasted greatly with the traditional midwives' casual wear. Regardless of their cleanliness, these uniforms displayed visual characteristics imported from the West.

Nevertheless, this reform was not as simple as merely replacing the biomedical equipment with indigenous equipment. It was a fact that childbirth in China remained firmly in the realm of women's activities. Many traditional practices, such as *zuo yuezi* (坐月子 confinement and rest for the mother for one lunar month following childbirth) and taking herb decoctions, were still widely recognised as being beneficial for both the mother and the fetus.

Although the Nanjing Government and the Shanghai Municipal Government made unprecedented progress in laws, education, encouraging women's employment, and publicity to ban and train new midwives, due to the wars from 1937, the reformed midwifery technology was never prevalent in

Shanghai before 1949.<sup>400</sup> From 1927 to 1936, a total of 555 midwives were approved by the Health Bureau in Shanghai, which was rather limited considering the population of Shanghai in the 1930s were around three million.<sup>401</sup>

There were several reasons for this. Firstly, mothers were still very fearful of unknown new methods and tools for childbirth. They were much more inclined to trust the traditional midwives who were very experienced or were, sometimes, related to the mothers. *Funü Yuekan* (妇女月刊 Women's Monthly) published an article about the journey of a pregnant woman who went to a maternity hospital for the first time. The author likened the enclosed labour room to an execution ground. "This room is large and well equipped, but it is no different from a torture ground in the eyes of the expectant mother. The tall delivery bed is also a torture platform. When a person is on the torture platform, her life and death are uncertain. Sure, sergeants go to the battlefield to kill the enemy to bleed for the country. We, women, produce blood for the country. We, women, sacrifice on this

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<sup>400</sup> Yingpei Wang, 'Tuanjie yu Gaizao: Cong Jiuchanpo Dao' (团结与改造: 从旧产婆到社会主义接生员——以上海为例的讨论 Unity and Transformation: From the Old Midwife to the Socialist Midwife: A Discussion with Shanghai), *Collection of Women's Studies*, 4 (2017), pp. 88-99.

<sup>401</sup> Yanping Zhou, 'Minguo Shiqi Shanghaishi Fuyou Weisheng Dangan Jianjie', (民国时期上海市妇幼卫生档案简介 A Brief Introduction to Shanghai Maternal and Child Health Archives in the Republic of China), [http://www.archives.sh.cn/dazn/ztn/201203/t20120313\\_5590.html](http://www.archives.sh.cn/dazn/ztn/201203/t20120313_5590.html), accessed on 26.03.2021.

production battlefield!”<sup>402</sup> One pregnant woman even experienced an impulse to escape after seeing the devices in the labour room that were used to deal with breech babies.<sup>403</sup> On one hand, the narratives of women’s reviews indicated that the hospital's complete medical equipment had not gained the patients' trust and it generated fear because of its strangeness. On the other hand, some of the narratives showed women's acceptance of reproduction as their responsibility for the "powerful country and strong race" despite feeling uneasy about the changed delivery method. Women in this article were compared to male soldiers. This military imagery presented women who risk their life to bear children as acting for the nation in a way comparable to soldiers, who risk their life for the nation. Their sense of responsibility was related to the future of their country rather than their husbands’ family. However, one aspects that should be stressed is that articles in these women's magazines were often written for women by men; hence, at times it could have been a man encouraging women to view their sacrifice in nationalistic terms, in considering the gender of the author was unknown.

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<sup>402</sup> Zhenhua, “Chanke Yiyuan Huiyi Lu” (产科医院回忆录 Memoirs of a Maternity Hospital), *Funü Yuekan* (妇女月刊 Women’s Monthly), vol. 3, 6 (1937), pp. 13-8.

<sup>403</sup> Dongying, “Chanfu Riji”(产妇日记 Maternity Diary), *Funü Yuekan* (妇女月刊 Women’s Monthly), vol. 3, 2 (1935), pp. 3721-3726.

Secondly, the expenses incurred through the use of modern midwives or obstetric hospitals were much higher than the expenses of the traditional methods, which would also create considerable economic pressure for ordinary and low-income families. Shanghai Qu's Hospital can be taken as an example. The minimum price for a delivery in 1939 was 30 Yuan. If the dean had delivered a baby, the average cost would have been as high as 100 Yuan, and the maximum charge was 500 Yuan in a case of dystocia or a complicated/dangerous birth, such as a breech delivery. Moreover, the mothers had to pay for their hospitalization in addition to these charges.<sup>404</sup>

Rumours of incidental charges harmed maternity hospitals' reputation and increased people's hesitation to use their services. At the same time, irregular delivery activities not only existed in maternity hospitals, but also among so-called reformed midwives. Some Western-style medical equipment had become their amulet in the tide of the times. The government and some private organisations arranged training courses for midwives, and a midwife license and a delivery kit would be issued after they passed the exam to distinguish them from the traditional midwives. However, it was still common for untrained midwives to operate a business illegally, and it did not seem that a government ban had been implemented. As a

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<sup>404</sup> Advertisement for Shengsheng Hospital, See Shaoheng Qu, *Zengding Chankexue Jiangyi Binglipian* (增订产科学讲义病理篇 Update the Obstetrics Lectures on Pathology), 1939.

result, untrained midwives prepared gauze, used scissors and pretended to be qualified midwives without knowing how to use the tools as required. The government's lack of supervision led to further hesitation towards use of the modern and trained midwives in the market, as potential patients could not be sure about trusting a midwife's assertions of her training.<sup>405</sup>

## Conclusion

The technology of childbirth was regarded as being crucial to improve the overall rates of maternal and infant mortality in China. The intellectuals in the New Culture Movement and the government's reformers perceived women as being the root cause of the weakening of the national power. Therefore, they took the adjustment of women's social responsibilities and reproductive activities as the guideline for sustainable development of labour and national power. The delivery technology reform aimed to partly release women from family responsibilities and turn their roles into being responsible for society and the country's future and fate. Therefore, the demand to change the childbirth technology was apparent and firm. However, in daily life, childbirth remained to be a matter of life and death, and was firmly attached to families' continuation and, especially due to the

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<sup>405</sup> Chunyan Zhou, *Nüti yu Guozu: Qiangguo Qiangzhong yu Jindai Zhongguo de Funü Weisheng (1895-1949)*, (周春燕, 女体与国族: 强国强种与近代中国的妇女卫生 (1895-1949) Women's Hygiene in Modern China(1895-1949)), PhD Thesis, National Chengchi University, Taiwan, 2008, p. 247.

lack of effective contraceptive technology, women still had to hang in the jaw of death with fear and worry. Therefore, despite the professional and modernised image portrayed in propaganda, the promotion of childbirth technology encountered difficulty in pulling women away from their 'unenlightened' lifestyle. In addition to the hesitation of individuals, the cost of using the promoted technologies in their early stage of popularisation was often very high, resulting in this being a major obstacle to their uptake. Women and their families were faced with a difference in service quality, which was caused by differences in financial ability and education.

Politically, when determining the promotion policy, the Shanghai municipal government did consider the experience of foreign countries and the pioneering work of the midwifery schools in Beijing, as well as local traditions. It introduced measures to train modern midwives, while transforming the traditional midwives and retaining some fetal care customs. However, in terms of market supervision, due to overly slack follow-up management, many untrained midwives claimed to be modern midwives with skills not matching their tools, which led to people's distrust. In policy formulation the government respected the opinions of experts in public health and obstetrics and gynaecology, and many female participants, such as Yang Chongrui, laid the foundation for a mediated, Chinese form of



modern obstetrics and gynaecology system. In addition to benefiting from the promotion of women's political status and the expansion of educational opportunities, women had created a new situation in which they could speak out and participate in political decision-making in the application of medical technology related to their body. The platform provided by the media also enabled them, as experts and users, to express their wishes and real concerns, in reflecting on their responsibilities related to society and their family. Women's participation emphasised more than reshaping women's identity and duties towards their family and country, as it also emphasised self-care and self-awareness.

Finally, traditional midwives, as the masters of the indigenous technology and as women themselves, were forced to defend themselves and their livelihoods. With the denial of their skills, methods and tools, the image of respected ritual experts dramatically reduced and they became, instead, objects of monitoring, admonition and banning. Their daily work had become a health administrative problem. In a sense they were participants in mutual assistance activities, providing prayer services alongside their experienced-based knowledge. During the reform, not only were they denied a voice, but they had also become symbols of backwardness, cunningness, ignorance and filth. Their way out was to take the opportunity

to be retrained, to save their image and to seek reacceptance by updating their practices and technology. Compared with the situation in Japan, where medicalisation in childbirth started in East Asia, China's dynamics shared many similarities in building a national body while avoiding unnecessary medical interventions. In both countries medical technologies contributed to changes in birthing practices and normative conceptions.<sup>406</sup>

To conclude, during the childbirth reform, the reshaping of women's roles, in responding to the country's call for a strong nation, was intertwined with the delivery technology they received. Different women's stories and struggles, including expectant mothers with different purchasing powers, midwives with various educational backgrounds and female obstetricians and gynaecologists, were treated and perceived differently by commentators, governmental policy-makers and the public. However, through this reform of a female-only technology, women's voices reflected pursuit of individualism and personal value in an unprecedented way. With both women's social responsibilities and well being considered in a society's concerns at an unprecedented scale, this reform's impact was more far-reaching than merely an increase in the popularity and prevalence of new medical technology.

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<sup>406</sup> Gonçalo Santos, Suzanne Z. Gottschang, 'Rethinking Reproductive Technologies and Modernities in Time and Space', *Technology and Culture*, 2(2020), pp. 549-58.

## **Chapter 5. Birth Control and Daily Use Medical Products**

In the previous chapter we explored the construction of the child and maternal health movement and the key roles of Western medical equipment and technology. This campaign guided women, especially pregnant women and midwives, and was regulated by continuously developing maternal health policies. However, the government did not show as much enthusiasm for, and control over, promoting birth control to enhance the success rate of childbearing, despite these aspects being essential towards the liberation of women in the first half of the twentieth century. Nevertheless, China was not untouched by this global trend, as, on the contrary, the Republican era was a crucial period of cultural and social change in China, during which cosmopolitan thinkers increasingly referred to human biology as the foundation for governance.<sup>407</sup> Intellectuals of the May Fourth and New Culture period in China were responsible for introducing and reconceptualising such trends as sexology, eugenics, anthropology and demography that existed in Europe, America and Japan.<sup>408</sup> They also invited European and American pioneers to China to disseminate their thoughts and theories. Connected with national rejuvenation and individual liberation,

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<sup>407</sup> Frank Dikötter, *Sex, Culture and Modernity in China* (London: Hurst&Company, 1995), p. 180.

<sup>408</sup> Leon Antonio Rocha, 'Xing: The Discourse of Sex and Human Nature in Modern China', *Gender & History*, 3 (2010), p. 603.

birth control and contraceptive technologies, alongside the 'new sexual morality', were vigorously debated. From the late 1920s in China prominent gynecologists began to transform birth control from a theoretical subject to a practice by setting up birth control clinics and also manufacturing simple contraceptive products.<sup>409</sup> Simultaneously, Shanghai, with its well-developed cultural industry and medical market, became home to the most well known birth control promoters and medical experts.<sup>410</sup> This chapter addresses how the birth control movement emerged under the influence of international trends and how it challenged the sexual order maintained by Confucianism in theory and practice. The aim is to analyse the engagement of people of different genders, classes and professions in this movement by investigating the introduction and application of medical supplies, mainly contraceptive products. It is proposed that the emergence of birth control products catered for the ambition of the so-called 'modernising elites' to rebuild a strong nation. However, there remained efforts to disseminate the birth control information and equipment from the humanitarian aspect, as an increasing number of women and families expressed urgent demands.

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<sup>409</sup> Mirela David, 'Female Gynecologists and Their Birth Control Clinics: Eugenics in Practice in 1920s-1930s China', *Canadian Bulletin of Medical History*, 1 (2018), pp. 32-62.

<sup>410</sup> Leon Rocha, 'A Small Business of Sexual Enlightenment: Zhang Jingsheng's "Beauty Bookshop"', *British Journal of Chinese Studies*, (2) 2019, pp. 1-30.

The literature on modern China's, particularly Shanghai's, birth control movement can be roughly divided into three types, namely the perspectives of elites, women and business. Many scholars have focused on intellectuals and professional groups who have put significant effort into translating, appropriating and disseminating birth control ideas and technologies. Sihh Kyu-hwan has been examining the advent of eugenics as a discourse to improve race since the late imperial period. Sihh distinguishes the different opinions of eugenicist and medical professionals. Eugenicists, such as Pan Guangdan, supported birth control as a way to select superior offspring and eliminate inferior people to fit in with their ideals. However, when physicians entered the debate in the 1930s the happiness of mothers and children and public health were taken into consideration.<sup>411</sup> Leon Antonio Rocha investigated the intellectuals of the New Culture period from the discourse of sex and human nature, viewing this was a panacea for China's weakness and perceived degeneracy. Rocha concluded that debates on contraceptive technologies, alongside the rules of dating and sexual activities, were connected with the drive to alter and 'fix' the understanding and practice of sex and, indeed, human nature.<sup>412</sup> Rocha's article marked a breakthrough in revealing sex discourse as the theoretical grounding of the individual

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<sup>411</sup> SIHN Kyu-hwan, 'Eugenics Discourse and Racial Improvement in Republican China (1911-1949)', *Korean J Med Hist* 19, 12 (2010), pp. 459-486.

<sup>412</sup> Leon Antonio Rocha, 'Xing: The Discourse of Sex and Human Nature in Modern China', *Gender & History*, No. 3 (2010), pp. 603-628.

liberation movement, which provided a potentially broader benefit to the birth control discussion. Whether or not this discourse has been continuously involved in the birth control practice requires further exploration. Rocha's research on Zhang Jingsheng, a key sexologist who opened a small business in Shanghai, offers an insight into the frustration such sexologists might have faced when enlightening the public. Her analysis of how Chinese intellectuals creatively appropriated scientific and medical discourse in their political doctrines was insightful for this chapter when investigating how educated people became gradually engaged in birth control concepts.

Bao Shufang is one of the early Chinese historians who noticed the development of birth control thoughts in China. Bao's Master's thesis explored and filled the existing research gap in views and policies that encouraged fertility in Chinese history and how those entrenched ideas interacted with the birth control movement, as well as the impacts of the birth control movement in China. However, although Bao's research is groundbreaking, it underestimates the role of Chinese women in birth control campaigns. He advocated that 'the gender that promoted the trend of birth control during the Republic of China was mainly men' and 'Chinese women did not actively pay attention to this trend of birth control. Their

inactivity greatly reduced the effectiveness of the trend of birth control.’<sup>413</sup>

Subsequent research explored how women participated in the birth control movement under the influence of ideological trends in several major cities in China. Yu Lianshi is a leading figure in the study of birth control health in Shanghai. Yu's work addresses many aspects of women's liberation, from medical aspects, childbirth and marriage to education. Yu's paper 'On the Movement of Birth Control in a Republican City—Focus on Beijing, Shanghai and Nanjing' details the specific measures formulated by the Shanghai government in response to the country's call for birth control. For example, Yu highlighted efforts of the Shanghai Birth Control Institute and gynaecologists to promote birth control knowledge and supplies through government intervention in Shanghai. Similar to Bao, although Yu's research in this article is not restricted to intellectuals and ideological trends, it is still limited to policymakers and implementers in the upper and middle classes, such as officials and doctors. As Yu's research has been gradually refined, in terms of the aspect of fertility policy, women's discourse has entered Yu's perspective.<sup>414</sup> On one hand, in 'A Study of Knowledge Women's Perceptions on Birth Control and Contraceptive Methods in Republican

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<sup>413</sup> Shufang Bao, 'Minguo Shiqi Jieyu Sichao Tanxi' (民国时期节育思潮探析 Analysis on the Thoughts of Birth Control in the Republic of China), Yangzhou University Master's Degree Thesis, 2004, pp. 56-57.

<sup>414</sup> Lianshi Yu, 'Minguo Shiqi Chengshi Shengyu Jiezhì Yundong de Yanjiu', (民国时期城市生育节制运动的研究: 以北京、上海、南京为中心 Research on the Urban Fertility Control Movement during the Republic of China: Centered on Beijing, Shanghai and Nanjing), Doctoral Dissertation of Chinese Modern Contemporary History, Department of History, Fudan University, 2008, pp. vii-xi.

China', Yu cast a new light on the modern female experiences of, and feelings about, birth by discussing topics ranging from the self-determination of motherhood to women's opinions of new sexual morals. He does not only listen to the voices of women, but also touches on what methods and tools are used by both women and men under the concepts of the 'self-determination of motherhood' and 'free will of birth'.<sup>415</sup> On the other hand, Michelle T. King highlighted the contribution of female physicians and activists, who undertook the responsibility of opening birth control clinics in Shanghai for the public regardless of their class. She stressed that the female participants' vision of the birth control movement moved away from racial improvement to humanity. Whilst the participation of female readers, physicians and intellectuals is paid tribute to in this chapter, their limitations are also discussed and reassessed.<sup>416</sup> However, how much trust do female patients had in these female practitioners? Moreover, there is no detailed distinction, whether seeing a female doctor was based on convenient morality that men and women should keep distance or the recognition of the female doctors' humanitarian spirit.

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<sup>415</sup> Lianshi Yu, 'Minguo Shiqi Zhishi Nüxing dui Jieyu de Renshi he Biyun Fangfa' (民国时期知识女性对节育的认识和避孕方法 Intellectual Women's Understanding of Birth Control and Contraceptive Methods in the Republic of China), *Chinese Social History Review*, 3 (2011), pp. 257-74.

<sup>416</sup> Michelle T. King, 'Margaret Sanger in Translation: Gender, Class, and Birth Control in 1920s China', *Journal of Women's History*, 3 (2017), pp. 61-83.



Beyond the literature on elites and gender, Frank Dikötter is against overemphasis on any particular group or 'the state' in the 'modernization' of society. In the case of 'sex modernity' he even noted the de-centred nature of power to curb the intellectual diversity and rebuild cultural life during the whole republican period.<sup>417</sup> Moreover, he offered an examination of scientific popularisation businesses, such as periodicals, vernacular newspapers and commercial advertisements. The many publishing houses in Shanghai took advantage of the relatively less centralised government while keenly propagating birth control knowledge and products to generate profit.<sup>418</sup>

In general there remains a lack of literature exclusively focusing on the introduction and application of different birth control technologies and products. Drawing on a large number of original materials this chapter explores the specific forms of birth control that existed in republican China, the reasons for their evolution and their limitations, and their impact on different classes and genders. Firstly, the historical context of the developments in the twentieth century is provided.

### **Chinese fertility thoughts and birth control techniques in history**

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<sup>417</sup> Frank Dikötter, *Sex, Culture and Modernity in China*, (London: Hurst&Company, 1995), p. 5.

<sup>418</sup> Frank Dikötter, *Sex, Culture and Modernity in China*, p. 3.

As Mencius instructed 'There are three things which are unfilial, but the most unfilial of these is to have no sons'.<sup>419</sup> Confucians value giving birth as obeying the doctrine of filial piety. A large number of family members, especially sons, meant continued worship of ancestors.<sup>420</sup> From the perspectives of state security and economic flourishing, there was fear of a decreasing population that would create a lack of labour, tax income and military strength,<sup>421</sup> and the factors of short life expectancy, high infant mortality and brutal wars were increasing this fear. Thus, throughout the imperial Chinese history, both the state and the patriarchal society held a positive and encouraging attitude towards childbirth. This entrenched ideology was so dominant that it was not possible for the population policy in Republican China to entirely move away from the people's duty to reproduce.

Regardless of the pressure from the top, various contraceptive methods were being surreptitiously used by the majority of poor people, who were finding it difficult to support a large family, especially a family with girls. In Fan Guiyu's research on China's childbirth culture she found that a disk of thin, transparent and oiled paper was often inserted into the vagina to

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<sup>419</sup> Zhongwei Zhao, 'Towards a Better Understanding of Past Fertility Regimes: The Ideas and Practices of Controlling Family Size in Chinese History', *Continuity and Change*, 1 (2006), pp. 9-35.

<sup>420</sup> Norman E. Himes, *Medical History of Contraception*, (New York: Gamut Press, 1963).

<sup>421</sup> Frank Dikötter, *Sex, Culture and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period*, (London: Hurst & Company, 1995), p. 15.

prevent conception. This type of paper was made from bamboo tissues. Other materials, such as cotton, fibre, silk and locks of hair, were also applied to the cervix, depending on their accessibility.<sup>422</sup>

The most common form of family planning was abortifacients, as a result of ineffective ways of preventing fertilisation. Abortifacient prescriptions had been provided by Sun Simiao in his *Qian Jin Fang* (千金方 Thousands of Gold Prescriptions) as early as the sixth century AD<sup>423</sup> and were inevitably harmful to women's health. It was also a common practice to drown infants, especially infant girls.<sup>424</sup> Consequently, having the duty of continuing the family line, women in the imperial period suffered with the prospect of raising children or not, and, in the long term, the pressure associated with raising a large family caused deviation in practice from the state's pro-natal policy.

### **The legitimization of birth control**

Entering the Republican era did not bring with it a different population policy and the encouraging attitude towards procreation continued, although it was based on a different perspective. Sun Yatsen's three principles of the

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<sup>422</sup> Guiyu Fan, *Zhonghua Shengyu Wenhua Daolun* (中华生育文化导论 An Introduction to Chinese Birth Culture), (Beijing: Zhongguo Renkou Chubanshe, 2001).

<sup>423</sup> Norman E. Himes, *Medical History of Contraception*.

<sup>424</sup> Deng Zhicheng, *Wang Huiweng (Shiduo) Yibing Diary*(汪梅翁(士铎)乙丙日记), edited by Shen Yunlong, *Jindai Zhongguo Shiliao Congkan vol. 13*, (Taipei: Wenhai Chubanshe, 1968), p. 156.

people considered that a limitation on births would be a form of racial suicide. Contraception and birth control and contraception information were, thus, opposed and then ignored in official publications and rarely discussed in government circles. The Guomindang government continued to favour an increasing population as the official ideology.<sup>425</sup>

Despite the unchanged prenatal ideas at the government level in the first twenty years of Republican China, the new generation of intellectuals raised a heated debate on birth control under the influence of Western eugenics. As early as 1798 Thomas Robert Malthus warned in his paper, *An Essay on the Principle of Population*, that the world was facing mass problems caused by the rapidly increasing population due to limited sources. Demographic growth would increase the labour force, which, in turn, would lead to lower wages. As the final and desperate chance for the poor to elevate to a better position, procreation would not benefit the poor and the working class overall.<sup>426</sup> In 1877 the first society in the world to promote birth control, the New Malthus League, was established in the United Kingdom. Since then the Netherlands, Sweden, Italy, the United States, Mexico and other countries have established groups or institutions to promote birth control. At the same

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<sup>425</sup> Frank Dikötter, *Sex, Culture and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period*.

<sup>426</sup> Klaus Hofmann, 'Beyond the Principle of Population: Malthus's Essay', *Euro. J. History of Economic Thoughts*, vol. 20, no. 3 (2013), pp. 399-425.

time birth control propaganda, birth control methods and medicines were also being actively developed.<sup>427</sup>

Of course this new wave affected Chinese students and intellectuals in Europe, who began to reflect on population-restrictive measures that would apply well to China's national conditions. Birth control was initially called a 'limitation to the new babies'.<sup>428</sup> In 1918 Chen Changchun, a graduate of Harvard University, wrote China's first population theory monograph, namely the "*China Population Theory*". According to his analysis of China's national conditions, he perceived the use of birth control tools would cause damage to social ethics.<sup>429</sup> As sexological texts were translated by May Fourth and New Culture intellectuals, 'xing' or 'sex' was interpreted by these translators as an extension to human nature, repressed by the 'cannibalistic' sexual morality of 'Old China'.<sup>430</sup> 'To strengthen the country, one should first strengthen the race; to strengthen the race, one should first improve sex education'.<sup>431</sup> In attempting to rebuild the relationship between men and women, adoption of eugenic and birth control practices was considered as a

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<sup>427</sup> Shufang Bao, 'Minguo Shiqi Jieyu Sichao Tanxi', p.13.

<sup>428</sup> Cheng Hao, *Jiezhi Shengyu Wenti* (节制生育问题 Questions about Birth Control), (Shanghai: Shangwu Yinshuguan, 1924), p. 99.

<sup>429</sup> Changheng Chen, *Zhongguo Renkou Lun* (中国人口论 Chinese Population Theory) from *Minguo Congshu* (民国丛书 Republic of China Series vol. 3), (Shanghai: Shanghai Bookstore, 1991), p. 23.

<sup>430</sup> Leon Antonio Rocha, 'Xing: The Discourse of Sex and Human Nature in Modern China', *Gender & History*, 3 (2010), pp. 603.

<sup>431</sup> Wang Chengpin, *Qingchun de Xingjiaoyu* (青春的性教育 Sex Education for Youth), (Shanghai: Xiongdi Chubanshe, 1939), p. 1.

way to catch up with the West.<sup>432</sup> Theories of racial improvement attracted a wide audience in China, due to fear of 'degeneration'. 'Racial hygiene' became a catchword in student magazines and textbooks.<sup>433</sup> Birth control pamphlets were included in marriage advice literature from the 1920s, with some even providing detailed methods of making condoms out of animal guts.<sup>434</sup> These ideological trends had opened the box of Confucius' sexual morality in the name of nationalism, creating more power and freedom for individuals, particularly women. Women were increasingly encouraged to escape their families' control. The long-lived gender hierarchies were targeted with the intention of providing the nation with more power over individuals. This pioneering vision caused dissent among intellectuals. Conservative opposition within the elites worried that those empowered women could not sufficiently fulfil their motherhood and domestic duties.<sup>435</sup>

However, the Chinese intellectuals' proposals for conservative or radical population control were strongly resisted by the ruling class of the National Government. Among the many international students, Zhang Jingsheng of the University of Lyon, France was a representative figure trying to discuss the concept of birth control policy in combination with China's national

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<sup>432</sup> Leon Antonio Rocha, 'Xing: The Discourse of Sex and Human Nature in Modern China', pp. 603-4.

<sup>433</sup> Frank Dikötter, *Sex, Culture and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period*. p. 113.

<sup>434</sup> Cheng Hao, 'Jiezhi Shengyu Wenti' (节制生育问题 Questions about Birth Control), p. 99.

<sup>435</sup> Louise Edwards, 'Policing the Modern Woman in Republican China', *Modern China*, vol. 26, no. 2 (2000), pp. 115-47.

conditions. He not only refined the government's guiding responsibilities related to birth control, such as setting up a "contraception bureau" to publicize and provide contraceptive medicine supplies, in order that everyone had a shared understanding of contraception and every family could access contraceptives, but also suggested a contraceptive injection. He proposed that, if a place exceeded the planned reproduction number, then adults could be injected with a contraceptive, in order that, for a specified period, the female population could not give birth.<sup>436</sup> In 1920 Zhang submitted his research results and ideas to Chen Jiongming, the governor of Guangdong Province, and suggested that China should restrict the population development, implement contraception and improve the quality of the population, and that couples who have more than two children should be punished. It was also proposed that Guangdong Province should be the pioneer in implementing birth control policies. Chen, however, who had numerous wives and more than ten children at that time, was provoked by Zhang's proposal, viewing it as a sarcastic personal attack. Zhang was damned as being a 'neuropath' and his proposal was thrown into Chen's bin.<sup>437</sup> During this period Chinese intellectuals tried to politicise the birth

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<sup>436</sup> Jingsheng Zhang, 'Mei de Shehui Zuzhifa' (美的社会组织法 The Law of the Beautiful Social Organisation), *Zhang Jingsheng Wenji*, (张竞生文集 The Collected Works of Zhang Jingsheng vol. 1), (Guangzhou: Guangzhou Publishing House, 1998), pp. 186-90.

<sup>437</sup> Jie Wang, *Li Dazhao Beijing Shinian (Communications)*, (李大钊北京十年 (交往篇) Li Dazhao Beijing Ten Years (Communications)), (Beijing: Central Bureau of Translation and Compilation, 2015).

control view with the government as a means of relieving social poverty, rather than seeking women's liberation or maternal autonomy. The general methodology was to regulate sexuality rather than to suppress it. Despite this birth control advocates remained to be ignored by most government officials, partly due to many powerful authorities in the government and local areas having a vested interest in a patriarchal society: 'To solve the population problem,.. One should definitely not advocate the limitation of birth, which is committing race suicide', as an exponent of the Nanjing Nationalist regime put it.<sup>438</sup>

The turning point of the East-West connection in childbirth issues was Margaret Sanger's visit to China in April 1922. As the founder of the American Birth Control League and an admired figure in the American reproductive rights movement she travelled to 'the East', including China, Korea and Japan, to spread her ideas. From 25<sup>th</sup> to 30<sup>th</sup> April that year Sanger enjoyed a warm welcome from intellectuals, including Hu Shi and Zhang Jingsheng, and media attention in Beijing and Shanghai.<sup>439</sup> She was invited to give speeches and attend forums at universities, periodical offices, guilds and other forums, such as at Peking University, *Women's Magazine*, the

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<sup>438</sup> Meishi Li, 'Sanminzhuyi de Renkoulun', (三民主义的人口论 The Three Principles of the People and demographic theory), *Xiandai Zhongguo Zazhi*, 2, nos 1-2, 1928.

<sup>439</sup> David Mirela, 'The Task Is Hers': Going Global, Margaret Sanger's Visit to China in 1922', *Asia Pacific Perspectives*, vol. 14, 1 (2016), p.75.



Jiangsu Society of Education and the National Association of Vocational Education of China. In her speech at the Shanghai staff education centre she introduced reasons for and methods of contraception and encouraged Chinese intellectuals to conduct organised activities, such as establishing birth control instruction centres, magazines and associations.<sup>440</sup> Sanger changed the conservative atmosphere in the public opinion by openly spreading knowledge of birth control and contraception in both her speeches and her publications, which were translated and discussed in popular Chinese periodicals.<sup>441</sup> Influenced by Sanger's visit *Women's Magazine* became the front of women's ideological emancipation for 'self-determination of motherhood'. Female voices in China reached a crescendo in discussions of birth control. Different to the male intellectuals' perspective, for the *Women's Magazine* female readers wrote articles and letters to express their strong desire for birth control by speaking from their own experiences.

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<sup>440</sup> Zi Sheng, 'Shangeer Furen Donglai de Yingxiang' (珊格尔夫人东来的影响 The Influence of Mrs Sanger from the East), *Funü Zazhi* (妇女杂志 Women's Magazine), 6 (1922).

<sup>441</sup> Dongyuan Chen, *Zhongguo Funü Shenghuoshi*, (中国妇女生活史 The Life History of Chinese Women), (Beijing: The Commercial Press, 1998), pp. 413-14.

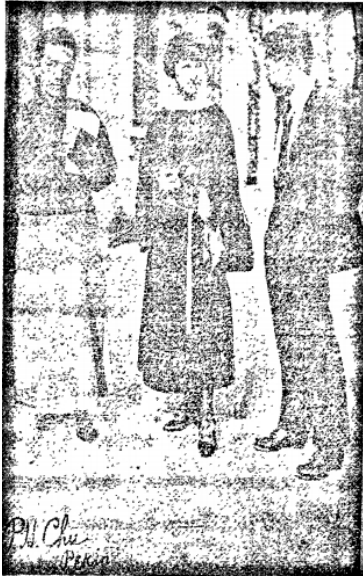


Figure 1. Mrs Sanger in Beijing (Left: Hu Shi, Right: Zhang Jingsheng 桑格夫人在北京时的摄影, 左胡适, 右张竞生), 1922 <sup>442</sup>

The earliest articles on birth control in the *Women's Magazine* were reports in June 1922 covering Sanger's visit. Se Lu's article, '*Birth Control and China*', explained to the readers the meaning of 'birth control' in practice and clarified that the intention of stopping pregnancy was not to encourage promiscuity, but to prevent inhumane infanticide in scientific ways. The articles in the *Women's Magazine* at this stage aimed to combat moral condemnation and promote the moral correctness of contraception.<sup>443</sup>

Despite the short but groundbreaking convergence between Western

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<sup>442</sup> *Chenbao Fujun*, (晨报副镌 Morning News), 25. 04. 1922, p. 2.

<sup>443</sup> Shiyong Qu, 'Shangeer Furen Fangwenji', (珊格尔夫夫人访问记 Interview with Mrs Sanger), *Funü Zazhi* (妇女杂志 Women's Magazine), 06.1922, pp.18-9. Se Lu, 'Chaner Xianzhi yu Zhongguo', (产儿制限与中国 Childbirth Restriction and China), *Funü Zazhi* (妇女杂志 Women's Magazine), 06. 1922, pp. 24-8.

eugenics and the brewing movement, there were some overtones to the story that also reflected the Chinese society's wider response to Sanger's visit. There was suspicion of and hostility towards her ideas. For example, Sanger appeared on the cover of *China Sketch* depicted as a foreign lady stealing children from their mother. By distorting and stigmatising her ideas the caricature promoted, and perhaps reflected, fear and hostility among its readers. Moreover, most of the Chinese interlocutors and audiences who showed support at her events were men. Sanger was surprised by this and later 'regretted' not meeting more Chinese women.<sup>444</sup> This reflected the predominant role of male elites and lack of involvement by women at this stage of this reproductive topic. Moreover, there were even philosophical and practical divergences between Sanger and the male eugenicists in China. Sanger could not accept the conservative eugenicists' belief that women's duty was to deliver babies. Furthermore, some birth controllers insisted on stopping all of the reproduction in a region to ease the economic strain, which also differed to Sanger's focus on contraception.<sup>445</sup> Despite all of the disagreements, inspired by Sanger, '*Birth Control*', a special issue of the

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<sup>444</sup> Michelle T. King, 'Margaret Sanger in Translation: Gender, Class, and Birth Control in 1920s China', *Journal of Women History*, 3 (2017), p. 65.

<sup>445</sup> Esther Katz, *The Selected Papers of Margaret Sanger, Volume 2 Birth Control Comes of Age 1928-1939*, (Urbana and Chicago: University of Illinois Press, 2007), p. 254.

*Women's Magazine*, was announced to contribute to the 'rebirth of the race'.<sup>446</sup>



Figure 2 Madame Sanger in China, 1936<sup>447</sup>

To conclude, the birth control movement in China in the 1920s did have an impact on breaking down the imperial social and sexual orders, although it was only able to bring reproductive rights into the open air, adding to the views on women's emancipation. Barriers to accepting such ideas came from the years of conflict in this period and officials who were desperate to maintain their decision-making power in male-dominated families.<sup>448</sup> However, lack of a powerful central government led to little strict official control over the influx of radical ideas from outside China. In this context the

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<sup>446</sup> 'Ying Sanger Furen' (迎珊格妇人 Welcoming Miss Sanger), *Funü Zazhi* (妇女杂志 Women's Magazine), 6 (1922), p. 3.

<sup>447</sup> Jinlou Zhu, 'Madame Sanger in China', *China Sketch*, 04. 1936.

<sup>448</sup> Zhonghua, 'Bainian lai Jieyu Yundong Fenrao de Lishiguan' (百年来节育运动纷扰的历史观 A Historical View of the Turbulent Birth Control Movement in the Past Century), *Funü Zazhi* (妇女杂志 Women's Magazine), 11 (1929), pp. 68-74.

significant progress in such a short period should be contributed to the heated debates and divergences contended to challenge the existing values.

### **Women's voices**

Chinese females' voice entered the discussion through texts describing their bitter history of childbirth as a request for help from the community. In January 1931 the *Women's Magazine* revealed an anxious letter from a female reader striving to put an end to being a 'reproduction machine', breaking women's silence on the issue. She wrote:

In the past few years, although family and childbearing forced me to have no leisure time when the night was quiet, and several children were asleep, I always liked to raise the lamp to read your magazine.

What I have been suffering for years is that I feel like a fertility machine and never rest. I am only 33 years old, but I have had six births. I kept four children, three daughters, and a son. At the moment, I have no pregnancy in the womb. However, based on past experience, I expect when my husband returns, there will be a new baby. My husband ignores my pain, and my mother-in-law also said that having only one son was not enough. They are such unforgiving people. After the fifth

girl was born, I was pregnant again. In the third or fourth month, I went to a local midwife for an abortion because I hated myself for continuing to give birth. I gave her ten Yuan from my savings. However, this time I experienced more pain than childbirth, bleeding almost to death. My fetus was removed, but I was seriously ill for months. When Mrs. Sanger visited China, your magazine talked about birth control. Why haven't you talked about it for a long time now? If you can't answer my questions, I hope you can publish a few more articles about birth control.<sup>449</sup>

This sad and eager appeal for help reflects the physical and psychological torture experienced by many women under the reproductive responsibility created by society. On one hand the husband ignored the needs and anxiety of his wife related to giving birth repeatedly. On the other hand her female elders also denied her any autonomy over her reproductive life. The helplessness of pregnancy and the danger of abortion encouraged the writer to seek technological support from outside when she was unable to achieve reproductive self-determination in the family. Such women had been searching for information on birth control in silence, but now they dared to

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<sup>449</sup> Xiuhua Huang, 'Shengyu de Jiqi yao Zuodao Jishi Weizhi ne' (生育的机器要做到几时为止呢 How Long Will the Fertility Machine Have to be), *Funü Zazhi* (妇女杂志 Women's Magazine), 1 (1931), pp. 247-48.

highlight their need for birth control openly.<sup>450</sup> The appearance of female participants and supporters in the birth control movement shifted this movement towards women's liberation rather than saving the economy or strengthening the race.

The letter received attention from the editorial office and Jin Zhonghua, the assistant editor (who later became a cultural movement expert and deputy mayor of Shanghai in 1952), responded to the letter with a comprehensive assessment of the present situation and anticipated future developments. According to his research scientists had invented a means of birth control called 'contraception', which was different to both abstinence and abortion. However, he did admit that both contraception and abortion were illegal. While the scientific means of contraception were kept secret, due to the objection of conservatives, abortion remained to be a common practice when women accidentally became pregnant. Jin also admitted there was no better way than to wait for disclosure of scientific methods and products for contraception. Devoid of governmental support and interest, Jin did not give up promoting contraception. He summarised the positive impact for women in gaining reproductive rights and the tools to prevent pregnancy.<sup>451</sup> In the

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<sup>450</sup> Joan Judge, *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodical Press*, (Berkeley: University of California Press, 2015).

<sup>451</sup> Zhonghua Jin, 'Jiezhi Shengyu yu Funü Shengli de Jiefang', (节制生育与妇女生理的解放 Birth Control and the Liberation of Women's Physiology), *Funü Zazhi* (妇女杂志 Women's Magazine), 9 (1931), pp. 16-24.

early 1930s further articles and letters in *Women's Magazine* showed that after Sanger's next visit to China in 1926, although still being the main speakers and promoters, the intellectuals took women's rights and experiences more into consideration and aimed to encourage women to participate in their own liberation. The correspondence between Jin and many female readers indicated that the major restraint at this stage of the movement was the lack of technological support.

### **Contraceptive methods**

The intellectuals of the 1920s and early 1930s laid the theoretical foundation for the birth control movement and the release and promotion of birth control products. What really put the birth control methods into action were imported contraceptive products and the medical workers who began to step into government management. Birth, ageing, illness and death, as well as birth control, were being medicalised.

The Shanghai Birth Control Research Society played an essential role in the transition of theory and practice. The Shanghai Institute of Birth Control Research (上海节育研究社) operated from May 1930 to 1933 and specialised in theoretical research and publicity. During this period, under the leadership of Chairman Yan Fuqing and Liu Wang Liming, the research



incorporated maternal and child health.<sup>452</sup> Its purpose was to improve children's health, preserve the health of mothers and enhance family happiness.<sup>453</sup> Founder Pan Guangdan stated in the founding declaration:

When a family needs birth control, they can take advantage of our work to get considerable preparations. After birth control, due to reduced reproduction, there can be a relatively large number of sound children, which can maintain the health of the mother and increase the happiness of the family.<sup>454</sup>

In practice, the institute's mission was to guide public opinion on birth control, disseminate information on the scientific methods of birth control, choose key sites in Shanghai to set up birth control clinics and provide a convenient supply of various birth control essentials.<sup>455</sup>

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<sup>452</sup> Liu Wang Liming spent her entire life in the women's liberation movement, and devoted herself to social relief activities. She had served as the president of the Chinese Women's Birth Control Society and the vice chairwoman of the Far East Region of the World Women's Birth Control Society. Regarding to the life of Liu Wang Liming, see her own statement 'You Jiating dao Shehui', (由家庭到社会 From Family to Society), *Liangyou*, 53 (1931).

<sup>453</sup> Liu Wang Liming, 'Funü yu Jiezhi Shengyu' (妇女与节制生育 Women and Birth Control), *Dongfang Zazhi*(东方杂志 Oriental Magazine), vol. 32, 1 (1935), p. 8.

<sup>454</sup> Pan Guangdan, 'Shanghai Jieyushe Yuanqi yu Xuanyan' (上海节育社缘起与宣言 The Origin and Declaration of Shanghai Birth Control Society), *Yousheng*, (优生 Eugenics), vol. 1, 2 (1931). As verified by Lu Wenhao, Shanghai Birth Control Society and Shanghai Birth Control Research Society should refer to the same thing, see Lu Wenhao, *Wusi Qimeng Sixiang de Yanxu yu Fansi: Pan Guangdan Shehui Sixiang Yanjiu* (五四启蒙思想的延续与反思:潘光旦社会思想研究 Continuation and Reflection of May Fourth Enlightenment Thought: A Study of Pan Guangdan's Social Thought, (Taipei: Xiuwei Information, 2012), p. 226.

<sup>455</sup> Liu Wang Liming, 'Funü yu Jiezhi Shengyu' (妇女与节制生育 Women and Birth Control), p. 8.

In 1934 the Shanghai Institute of Birth Control Research and the Chinese Women's Birth Control Association (中华妇女节制协会) jointly organised the "Shanghai Birth Control Guidance Institute" (上海节育指导所) in aiming to "promote the birth control movement and guide the methods of ordinary people's birth control". It was argued that individuals, families, society and the country could, thus, seek happiness.<sup>456</sup> In 1936 the society cooperated with the Chinese Medical Association, where doctors guided and assisted people in birth control. Firstly, the institute cooperated with the Chinese Medical Association in the birth control clinic at 29 Chisao Road, providing free guidance on birth control methods. Secondly, the institute aimed to produce inexpensive birth control supplies for civilian use. Three birth control clinics were opened in succession at Guangren Hospital, Ximen Women's and Children's Hospital and the China Red Cross Hospital.<sup>457</sup>

The Shanghai Birth Control Research Institute ceased its operations in 1937 due to the Japanese bombing.<sup>458</sup> Only after it reopened in 1941 were plans to provide birth control supplies realised. It sold birth control drugs and supplies at cost and encouraged physicians to prescribe birth control drugs

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<sup>456</sup> Zhonghuiqing Zhou, 'Weishenme Yaoban Jieyu Zhidaosuo', (Why do we want to set up a birth control guidance center 为什么要办节育指导所), *Annual Journal of the Chinese Women's Birth Control Society*, 12 (1934), p. 34.

<sup>457</sup> Shanghai Archives, U38—5—237, 'Shanghai Fazujie Gongtongju Weishengchu Guanyu Shanghai Jieyu Yanjiushe Zhuan (1940)', (上海法租界公董局卫生处关于上海节育研究社专 The Health Department of the Public Children's Bureau of Shanghai French Concession on the Shanghai Birth Control Research Institute (1940)).

<sup>458</sup> Lianshi Yu, 'Minguo Shiqi Chengshi Shengyu Jiezhhi Yundong de Yanjiu', p. 235.

and appliances. In order to further reduce costs and the selling prices it even contacted the Durex Company in the United States to directly order uterine caps.<sup>459</sup> However, in early 1942 it closed again due to a lack of economic resources. Up until then three main types of birth control products were adopted by the birth control guidance institute, namely uterine caps, condoms and foaming powder. The uterine caps and condoms were imported products with their price being nine Yuan and four Jiao and five Yuan, respectively. However, these prices were still high for ordinary civilians. With the foaming medicinal powder costing only one Yuan and five Jiao, it was the cheapest and most popular birth control method.<sup>460</sup> The huge price gap between imported and domestic birth control products directly determined the gap in the birth control effects in families of different classes and income levels.

Birth control medicines were cheaper and more convenient to use than birth control appliances and could be purchased from foreign companies outside the birth control research society. Therefore, the application and promotion of birth control medicines was much more extensive than it was with birth control appliances. For instance, the most common birth control products

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<sup>459</sup> 'Shanghai Jieyu Yanjiushe Zhiweihui Kaihui Jilüe' (上海节育研究社执委会开会纪略 Summary of Meetings of the Executive Committee of Shanghai Birth Control Research Society) *Shanghai Yishi Zhoukan* (上海医事周刊 Shanghai Medical Weekly), vol. 7, 14 (1941).

<sup>460</sup> 'Shanghai Jieyu Yanjiushe' (上海节育研究社 Shanghai Birth Control Research Society) *Shanghai Yishi Zhoukan* (上海医事周刊 Shanghai Medical Weekly), vol. 6, 41 (1940).

advertised in the *Women Magazine* were ‘Speton’ and ‘Lady’s Friend’, both of which were for external use only having the primary function of diminishing inflammation and corrosion. They were used to disseminate sperm by injecting a solution into the vagina with an injector before intercourse.<sup>461</sup>



Figure 3. Speton Ideales Anticonciens, 1931<sup>462</sup>

<sup>461</sup> Xueji Gu, 'Jiezhì Shēngyù de Fāngfǎ' (节制生育的方法 Methods of Birth Control), *Kexue Shijie* (科学世界 Science World), vol. 5, 9 (1936), pp. 798-99.

<sup>462</sup> 'Shibantong-Chuleibasui de Zhiyu Liangyao', (史斑通-出類拔萃的制育良藥 Speton Ideales Anticonciens), *Women's Magazine*, 7 (1931), p. 135.



Figure 4. Lady's Friend, 1931<sup>463</sup>

Those products were imported by individual foreign firms and they dominated the market until the cheaper local-made soda powder and oral contraceptive pill 'Jieyuling' made from Chinese medicine took a share.<sup>464</sup>

<sup>463</sup> 'Ta de You', (她的友 Her Friend), *Women's Magazine*, 7 (1931), p. 149.

<sup>464</sup> 'Benhui Chushou Jieyu Paomofen' (本会出售节育泡沫粉 Our Association Sells Birth Control Foam Powder), *Chinese Medical Journal*, vol. 23, 1 (1937), P. 108.



Figure 5. *Jieyuling* (节育灵) Produced by Sanxing Pharmaceutical Factory, 1943<sup>465</sup>

Despite the advantages of these contraceptive chemicals, such as being relatively cheap, easy to obtain and convenient to use, as well as not preventing pleasure, they did not perform efficiently, especially the popular soda powder that did not prevent conception when distributed in the vagina unevenly.<sup>466</sup> Therefore, the relatively high accessibility of chemical products did not restrain contraceptive equipment from being developed and spreading.

<sup>465</sup> 'Jieyuling Advertisement' (节育灵 Birth Control Panacea), *Shenbao*, 02. 06. 1943, p.2.

<sup>466</sup> Gu Xueji, 'Methods of Birth Control', (节制生育的方法 Methods for Birth Control), *Science World*, vol. 5, 9 (1936), p. 799.

Medical authorities and practitioners also put effort into testing and improving different types of contraceptive equipment, partly to increase the medical intervention and authority in daily life. Guo Qingquan summarised three principles of device contraception in his paper '*Practical Contraception*', namely preventing sperm from entering the uterus directly, preventing sperm that has been discharged into the vagina from being 'inhaled' by the uterus, and limiting the sperm motility.<sup>467</sup> The paragraphs below discuss the three most common types of protective equipment for daily use and development before 1949, namely male condoms, female partition cups and uterus plugs.

## **Condoms**

Condoms were used for venereal disease prevention as early as the sixteenth century in Europe. By the 18<sup>th</sup> century the reputation of condoms in the medical professional had been firmly cemented.<sup>468</sup> The mass production and distribution of condoms greatly increased with the advent of rubber vulcanisation in 1844. The introduction of latex brought a second revolution

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<sup>467</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), (Shanghai: Home Magazine, 1947), p.47.

<sup>468</sup> 'History of Condoms from Animal to Rubber', <https://wellcomecollection.org/articles/W88vXBIAAOEyzwO>, accessed on 25. 03.2021.\_

among condom manufacturers in the early 1930s, which greatly enhanced condom production and lowered the prices.<sup>469</sup>

The earliest Chinese accounts of condom-shape objects were found in the sixteenth-century Ming dynasty erotic fiction, which inspired Li Ling's theory that China invented the condom.<sup>470</sup> Condoms remained a product exclusive to brothels for preventing sexually transmitted diseases. In 1913, in preparing for the 1915 Panama Pacific International Exposition, an article in *Shenbao* discussed adding a 'China-made bag of dissoluteness and felicity' to the Chinese display.<sup>471</sup> This is the earliest record found in popular media discussing condoms, providing a name and secular meaning. In the 1920s condoms were introduced to Chinese customers as preventive products for both infectious diseases and birth control, as part of the 'hygienic modernity' trend.<sup>472</sup> Condoms were given new names, such as 'hygiene bags' (卫生袋 *weisheng dai*) and 'safety bags' (保险套 *baoxian tao*).<sup>473</sup> According to Guo Qingquan, who investigated the contraceptive methods in China in his

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<sup>469</sup> Linda Gordon, *Woman's Body, Woman's Right: A Social History of Birth Control*, (New York: Grossman/Viking, 1976), p. 317.

<sup>470</sup> Li Ling, *Zhongguo Fangheng Kao* (中国方衡考), (Beijing: Oriental Publishing House, 2001), p. 456. For sexuality issues in the imperial China, see Keith McMahon, *Polygamy and Sublime Passion: Sexuality in China on the Verge of Modernity*, (Hawaii: University of Hawaii Press, 2010); Keith McMahon, *Women Shall Not Rule: Imperial Wives and Concubines in China, Han to Liao*, (Lanham: Rowman and Littlefield, 2013).

<sup>471</sup> 'Banama Saihui Jinxingshe Zhengqiu Wupin Tonggao', (巴拿马赛会进行社征求物品通告 Announcement of Social Solicitation for the Panama Pacific International Exposition), *Shenbao*, 27. 06. 1913.

<sup>472</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*, (California: University of California Press, 2004).

<sup>473</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), pp. 47-8.



*Practical Contraception*, condoms in China were common, due to their advantages of being easy to buy and carry and not requiring a doctor's intervention. As Guo observed, condoms in Shanghai were usually made of rubber and sold in three sizes. Users were advised to store them in a dry and ventilated place. Before use people were instructed to blow some air into the condom to make sure it did not leak and had not lost its elasticity. Even though measures were taken to avoid leakage, contraceptive efficacy could not be guaranteed.<sup>474</sup> In 1936 the Beiping Birth Control Clinic reported that among the 26 condom users who accessed its medical services only 11, being 42 per cent, avoided pregnancy. There were also complaints regarding condoms lacking elasticity and suitable sizes.<sup>475</sup> This report shows, however, that a contraceptive meaning was added to condoms along with disease prevention.

It was not until the 1950s that China began to produce condoms. Prior to that most condoms were imported from Germany, the U.K., the U.S. and Japan. Those condoms could be purchased from foreign goods stores and pharmacies.

### **Popularising and advertising condoms**

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<sup>474</sup> Ruth Rogaski, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*.

<sup>475</sup> Jiyong Shen, 'Beiping Jieyusuo Babai Wushier Lian zhi Yanjiu' (北平节育诊所八百五十二例案之研究 A Study of 852 Cases of Peking Birth Control Clinic), *Chinese Medical Journal*, vol. 22, 5 (1936), p. 364.

The popularisation of condoms by experts and advertisers earned a considerable popular base during the 1920s and 1930s when condoms appeared in more advertisements, popular literature and even jokes. An article in *Shenbao* told a tale of the woe of laundrymen, adding some dark humour at the end by sharing their experiences of finding valuable things in their customers' pockets. The author claimed the 'ironing man' pulled out a condom from a slick white suit.<sup>476</sup> Although such stories did not reflect the lives of the impoverished majority, anecdotes of condoms were circulating in local magazines and tabloids to attract attention and increase the audience size.]

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<sup>476</sup> Wang Xizhe, 'Shenghuo Xiyi Zuoliwang' (生活洗衣作里王), *Shenbao*, 15.04.1934.



Figure 6. Contraceptive Equipment for Men and Women (advertisement), 1925<sup>477</sup>

Advertisements were more directly publicising condoms and other contraceptive products. The descriptions in advertisements emphasised the multiple advantages of specific products, tailored to the needs of both male and female consumers. An advertisement for ‘Contraceptive equipment for men and women’ highlighted the soft texture and durability of high-quality German imports, which would, apparently, guarantee protection against both disease and pregnancy. In 1925 a box containing six pieces was priced at 0.9 Yuan.<sup>478</sup> We can, therefore, assess the affordability for a family to

<sup>477</sup> ‘Nannü Jieyuqi’, (男女节育器广告 Male and female Contraceptive Device), *Shenbao*, 08. 06. 1925, p. 10.

<sup>478</sup> ‘Nannü Jieyuqi’, (男女节育器广告 Male and female Contraceptive Device), p. 10.

purchase these high-quality condoms by considering their disposable income (beyond expenditure). Workers whose wages were relatively stable in the 1920s can be used as an example. According to the records of the British-American Tobacco Company in 1924, the average salary in this foreign enterprise was 15.63 Yuan for male workers and 11.32 Yuan for female workers at its Pudong factory. At their other factory on Disiwei Road the average wage for male workers was 12.38 Yuan and for female workers it was 10.88. The factory estimated that the monthly cost of living for a family of five was 20 to 25 Yuan, which meant that one-earner married couples could barely make ends meet and only if at least two of the family members worked could they sustain self-sufficiency.<sup>479</sup> At the Foh-Sing Mill Company, a booming Chinese enterprise owned by the Rong family, the average wage for its workers was 12.25 Yuan in 1920, whereas the lowest living cost for a couple with two children was estimated to be as high as 34.76 Yuan.<sup>480</sup> In such a case even a two-earner married couple would struggle to maintain moderate living conditions for the whole family in Shanghai.<sup>481</sup> However, with the national education and higher education systems being established,

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<sup>479</sup> Edited by Shanghai Academy of Social Sciences Department Economic Research Institute, *Yingmei Yangongsi Zaihua Qiye Ziliao Huibian*, (英美烟公司在华企业资料汇编 *British-American Tobacco Co.(China) History Sources*), vol. 3, (Beijing: Zhonghua Book Company, 1983), p. 1042.

<sup>480</sup> Edited by Shanghai Academy of Social Sciences Department Economic Research Institute, *Rongjia Qiye Shiliao* (荣家企业史料 *Rongjia Enterprise Historical Materials*), vol. 1, (Shanghai: Shanghai People's Publishing House, 1980), p. 123.

<sup>481</sup> Weiguo Fan, 'Minguo Shiqi Shanghai Shengchan Yaosu Shichanghua yu Shouru Fenpei', (民国时期上海生产要素市场化与收入分配 *Marketing of Shanghai's Production Factors and Income Distribution during the Republic of China*), *Shanghai Economic Research*, 8 (2004), p. 76.

the level and length of practitioners' education became a general measure in determining wages. Staff members with a high education qualification working in the office at Chinese and foreign enterprises earned a higher salary, being three to ten times higher than that of the general workers. Furthermore, intellectuals teaching in universities and high schools earned a salary ranging from 70 Yuan to 600 Yuan in the 1930s.<sup>482</sup> The figures above reflect that the residual income of a working-class family would make it difficult for them to afford using high-quality condoms regularly, whereas middle-class families with a better education, as well as having greater access to public media, new trends and ideas, benefited from more disposable income to put contraceptive products into practice.

The Sino-Japanese War brought a boost to the market for American products, as the nationalist government enlarged its market to American war supplies.<sup>483</sup> A large number of condoms, along with the American war supplies, entered the market through the intermediate operation of so-called purchasing agents.<sup>484</sup> 'Wang Wenlan Hoarding Condoms' in the *Yefeng*

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<sup>482</sup> Weiguo Fan, 'Minguo Shiqi Shanghai Shengchan Yaosu Shichanghua yu Shouru Fenpei', (民国时期上海生产要素市场化与收入分配 Marketing of Shanghai's Production Factors and Income Distribution during the Republic of China), p. 74.

<sup>483</sup> Zhao Xianming, Qiu Mei, 'Erzhan Shiqi Meiguo Yuanhua Zujie Wuzi Weiyongyu Kangri Wuzi Wenti Yanjiu' (二战时期美国援华租借物资未用于抗日物资问题研究 On US-aided Goods and Materials Not Applied to Anti-Japanese During World War II), *Journal of Xichang College Social Science Edition*, vol. 17, 1 (2005), pp. 96-8.

<sup>484</sup> The U.S. Congress passed Roosevelt's Lend-Lease Act in March 1941, which empowered the president to aid any nation he believed vital to the United States' national safety. Based on this act, the U.S. government rented China goods and weapons worth 825 million dollars during World War II. However, those goods were not fully utilised in the war

Magazine depicts a vivid image of a purchasing agent, Wang Wenlan, who purchased 960 cases of American condoms from The Allies Supply Office (盟军物品处), being the ration office for surplus supplies. She solicited customers by claiming ‘the price of condoms would definitely rise once the ration stops. Do not blame it on me if it happens.’ Her visible bare breast and large bottom in this comic also indicates the sexualised nature of this advert.



Figure 7. Wang Wenlan Hoarding Condoms (王 Wenlan 囤积如意袋), 1946 <sup>485</sup>

The destruction of war did not damage people’s creativity and passion for a better life. On the contrary, the stockpiled American commodities stimulated vendors’ commercial talents after the war. To attract passers by peddlers blew air into the condoms, which turned into milk grape shaped balloons. As

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against the Japanese army; instead, some supplies were transported directly to the black market due to collusion between the American vendors and the Song family which controlled the southWest Chinese transport line. See Zhao Xianming, Qiu Mei, ‘Erzhan Shiqi Meiguo Yuanhua Zujie Wuzi Weiyongyu Kangri Wuzi Wenti Yanjiu’ (二战时期美国援华租借物资未用于抗日物资问题研究 On US-aided Goods and Materials Not Applied to Anti-Japanese During World War II), *Journal of Xichang College Social Science Edition*, vol. 17, 1 (2005), pp. 96-8.

<sup>485</sup> Ju You, ‘Wang Wenlan Tunji Ruyidai’ (王 Wenlan 囤积如意袋 Wang Wenlan Hoarding Condoms), *Yefeng* (野风), 2 (1946).

described in *Guoji Xinwen Huabao (Global News Illustrated)*, this resulted in considerable growth of the popularity of the ‘unwitting girls’ who bought and ‘inflated condoms’ and then flew them ‘all over the street.’<sup>486</sup> As well as having protective and entertaining functions, condoms were also being used for hiding drugs and counting money.<sup>487</sup>

The meanings and functions of condoms were determined and framed by various parties in the different political environments in China. The process of localisation was, in some ways, easier in China than it was in the U.S., where legal and religious obstacles prevented a ready uptake of condoms. In China there were no such legal or religious barriers to the popularisation of condoms. However, China also lacked a legislative framework to regulate the supply and the standards of contraceptives in Western countries. There already existed a great demand for birth control among the poor majority. The fundamental problems were rooted in the limitations to people’s purchasing power and knowledge; thus, condoms were either not affordable or inaccessible for most. This case again highlights that the difference in finance and classes had played a central role in the uneven distribution of birth control products.

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<sup>486</sup> Gongmu, ‘如意袋变洋泡泡 Wishful Bag Turns into Foreign Bubbles’, *Guoji Xinwen Huabao (国际新闻画报)*, 52 (1946).

<sup>487</sup> Huatuo, ‘Baioxiantao Jiuguo lun’ (‘保险套’救国论 Condoms Saving the Country), *Yuanfeng (远风)*, 1 (1947).

## Cervical cap (子宫帽)

Cervical caps and vaginal diaphragms are two kinds of barrier contraceptives applied to female bodies, preventing sperm from entering the uterus. Cervical caps were a hat-shaped cup commonly made of rubber and in various sizes. Although cervical caps were reusable, they had to be removed before menstruation. It became a regular practice for users of cervical caps to consult a doctor, as inserting and removing a cervical cap each month had to be dealt with by a doctor.

In 1947 Guo Qingquan summarised some of the advantages and disadvantages of different contraceptive products, including cervical caps, which he suggested women should take into consideration when choosing a suitable product. It was recommended to use cervical caps together with phenylmercuric acetate jelly (避孕胶冻) serving as a spermicide, the efficacy of which could, according to Guo, reach over 90%.<sup>488</sup> Five years before Guo published his advice a report by Dr Shen Jiyong at the Shanghai Obstetrics and Gynecology Hospital reached a conclusion on contraceptive efficacy. His study found the failure rate of cervical caps was 11.1%, which was much

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<sup>488</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 35.



lower than the failure rate of condoms, which was 42.8%.<sup>489</sup> It was not only the high reliability rate found in the research that aroused the enthusiasm of experts, as the relatively more affordable price made them a more comfortable option for ordinary families. According to an advertisement by Fuhua Western Pharmacy in 1925 a German cervical cap could be used for two to three years at the price of 1.75 Yuan.<sup>490</sup> The price at Bailing Pharmacy was lower at 0.7 Yuan in 1928.<sup>491</sup>

As safe and cheap as the experts claimed they were, women still worried about the danger of the caps getting stuck. In addition, many women expressed their unaccustomedness to, and discomfort with, inserting the product internally, perceiving the method of application as inconvenient or unsafe.<sup>492</sup> The root of the cognitive dissonance was whether or not to make a doctor's intervention a common practice in their private life. As doctors were trying to increase the participation and authority in their patients' everyday life, they were also adding a burden that had not been present and a sense of distance. Consequently, those who used a cervical cap often did not apply phenyl mercuric acetate and follow a doctor's instructions. Patients were also not following their doctor's instructions fully for cost

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<sup>489</sup> Jiying Shen, 'Jieyu Shigong zhi Jiantao' (节育事工之检讨 Review of Birth Control Matters), *Chinese Medical Journal*, vol. 28, 5 (1942).

<sup>490</sup> 'Nannü Jieyuqi', (男女节育器广告 Male and female Contraceptive Device), p. 10.

<sup>491</sup> 'Nannü Biduqi', (男女避孕器广告 Male and female Contraceptive Device), *Shenbao*, 04. 03. 1928, p. 18.

<sup>492</sup> Lianshi Yu, 'Minguo Shiqi Chengshi Shengyu Jiezhì Yundong de Yanjiu'. p.289.

reasons or due to their reluctance to attend for the whole recommended process. For whatever reasons, this shows a disconnection between the medical profession and patients' practice in the real world.

A report in *Shenbao* in 1936 recorded a woman's experience of requesting birth control guidance. The author became unemployed after giving birth. Due to her fear of having another baby and never being able to return to work, she registered at a hospital for birth control counselling after seeing the advertisement by chance. After answering the doctor's questions about her reasons for seeking contraception, her family status and her financial situation, she was asked to lie on a high bed. The doctor then started to teach her how to use the cervical cap while instructing, in a foreign language, a group of students who were standing around. 'The so-called cervical cap is just a teacup-shaped object made of rubber. It is simple to use – just place it in the vagina.' The patient expressed satisfaction with the product but criticism of the accompanying service. 'The doctor then prescribed some medicine looking like a tube of toothpaste, a little of which should be put into the cap every time. The nurse asked for 5 Yuan for the cap and 1 Yuan for the medicine as she wrapped and passed me both products. I was shocked even though I had 6 Yuan with me since it was all my living expenses for the next half month.' She hesitated and reluctantly decided not to

purchase the products, hence taking the risk of having a second child.<sup>493</sup> The high cost of the medical products, the apathetic attitude of the medical staff and being treated like a subject for medical training had decreased her willingness and determination to obtain birth control. Her experience, as well as other similar complaints, revealed a psychological gap resulting from patients' unrealistically high expectation of Western medicine's simplicity and recovery speed, as well as the inconsideration given to the patient's body and autonomy from some medical practitioners in the process of attempting to intervene in the reproductive space, controlling the individual body and establishing authority in daily life.

### **Vaginal Diaphragms (阴道帽)**

As with condoms, the innovation of vaginal diaphragms benefited from the vulcanisation of rubber.<sup>494</sup> Wilhelm P. J. Mensinga, a German physician, invented the vaginal diaphragm in 1881. This diaphragm, used with phenyl mercuric acetate cream or jelly, soon became the most often recommended contraceptive device by physicians in clinics and practices in the U.S.<sup>495</sup> A coiled rubber-covered spring was used to keep the diaphragm in a

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<sup>493</sup> Chengzi, 'Qingqiu Zhidao Jieyu Jingguo' (请求指导节育经过 Request for Guidance on Birth Control Process), *Shenzhen Women's Special Issue*, 34 (1936), p. 17.

<sup>494</sup> Vern L. Bullough, 'A Brief Note on Rubber Technology and Contraception: The Diaphragm and the Condom', *Technology and Culture* 22, 1 (1981), p. 105.

<sup>495</sup> Christopher Tietze, 'History of Contraceptive Methods', *The Journal of Sex Research*, vol.1, 2 (1965), p. 71.

hemispheric shape.<sup>496</sup> Once placed inside the vagina, the elastic edge was in close contact with the vaginal wall; thus, the uterus was covered and isolated from the sperm.



Figure 8. Vaginal Diaphragm and Phenyl Mercuric Acetate Jelly, 1948<sup>497</sup>

According to Guo the diaphragms came in numerous sizes and could be configured by an experienced gynaecologist to fit the size and length of the vagina. The doctor would then usually instruct the patient until she managed to place and remove it on her own. To make the instructions clear Guo also provided images with the operating instructions. The suggested steps for use in Guo's manual were as follows.

### Step 1

<sup>496</sup> Vern L. Bullough, 'A Brief Note on Rubber Technology and Contraception: The Diaphragm and the Condom', p. 105.

<sup>497</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 4.

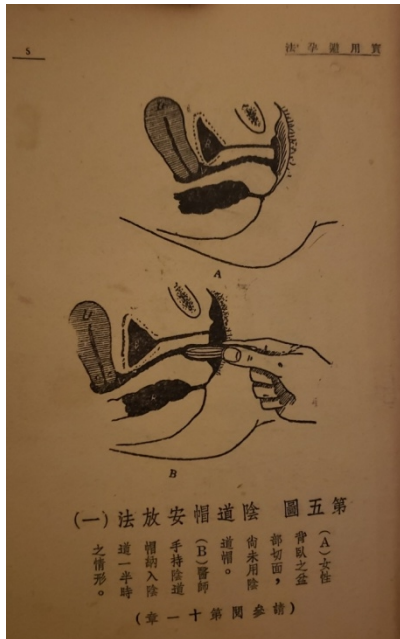


Figure 9. Vaginal Diaphragm Placement, 1948<sup>498</sup>

A. Female pelvic section of dorsal fossa without the vaginal diaphragm

B. The physician is holding a vaginal diaphragm halfway in the vagina.

Step 2

<sup>498</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 5.

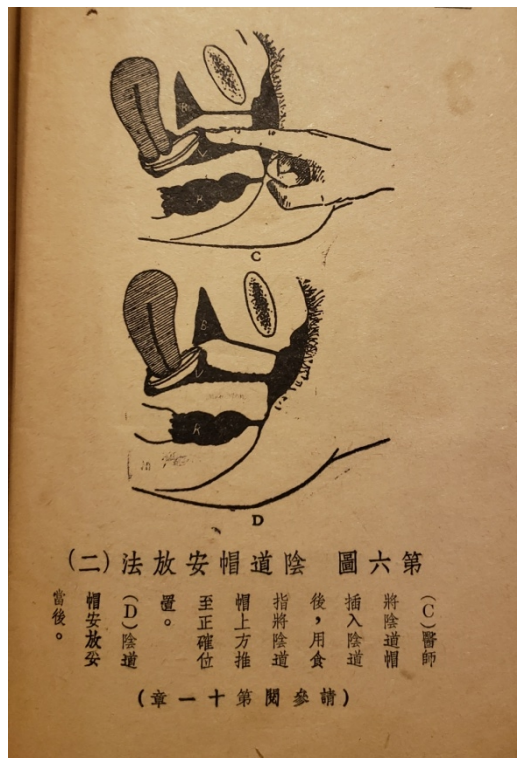


Figure 10. Vaginal Diaphragm Placement, 1948 <sup>499</sup>

C. After inserting the vaginal diaphragm into the vagina, the physician pushes the upper part of the diaphragm into the correct position with the index finger.

D. The vaginal diaphragm is appropriately placed.

Guo highly recommended using this device with phenyl mercuric acetate jelly. He asserted that squeezing the jelly onto the surface of both sides and edges and inserting the device properly into the vagina would guarantee 100% protection against fertilisation. As well as using the diaphragm and

<sup>499</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 6.

jelly correctly, women were encouraged to maintain reproductive hygiene. In the morning after intercourse women should prepare a vaginal lavage solution, with the most commonly used solution being two pounds of purified and warm water and a small spoon of salt. The water container could be a hanging tube or a hot water bottle with a rubber tube.

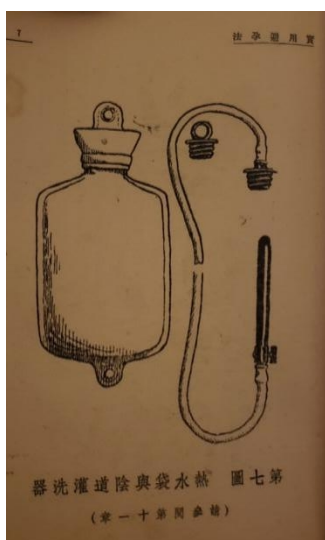


Figure 11. Hot Water Bottle and Vaginal Lavage Device, 1948 <sup>500</sup>

<sup>500</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 7.



Figure 12. The Posture During Vaginal Lavage, 1948 <sup>501</sup>

Before the lavage the woman should lie supine on a bedpan and hang the water container two or three feet above her body. Then, she should insert the head of the douche into the vagina (as indicated in the accompanying figure) and use half of the water to wash out the remaining semen. The next step is to turn off the switch and remove the vaginal diaphragm by inserting the index finger, touching the lower edge and hooking on the lower edge to remove it. After removing the diaphragm, the remaining water should be used to wash out the jelly in the vagina. Before putting it back in place the user should wash the diaphragm carefully, absorb the water with absorbent cotton or a cloth and then sprinkle it with household talcum powder. The same procedure could be applied in a bath. However, those suffering from

<sup>501</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 8.



perineal laceration or a prolapsed uterus could only apply this method after surgical correction. This process could be damaging to a woman's reproductive health, which illustrates the limitations of the medical advice offered alongside contraceptive procedures.

Guo recommended the combination of a vaginal diaphragm, phenyl mercuric acetate jelly and a douche for common use, due to their comparative affordability and reliability. Furthermore, the side effects would be minor for women. Guo specifically pointed out that this method facilitated the wife's decision-making and autonomy over childbearing, without the need to seek help from doctors or gain permission from their husband, reflecting a new interest in women's autonomy. Due to the advantages, in the 1930s most birth control institutes in China began to focus on promoting this method.<sup>502</sup>

### **Vaginal Tampon (阴道塞)**

Throughout history all over the world women have used tampons of various kinds not only for menstrual protection but also as a contraceptive to block the way to the uterus, preferably for the function of absorbing semen. From vegetable seedpods, grass and crushed roots in Africa, seaweed, moss and bamboo in Asia and empty halves of pomegranates in ancient Greece to the

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<sup>502</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception).

more recent soft paper, cotton, gauze, plush sponge and rubber cotton, household materials have been within reach and are much more economical than other methods.<sup>503</sup> Such materials could be either used alone or soaked with liquor, such as vinegar, oil, soap and juice. Among all these materials, rubber-coated cotton was recommended by Guo, as it could be sterilised by boiling and reused.

This method was targeted at those who had no access to a gynaecologist or contraceptive products, whilst cotton, gauze and paper were everyday products. Despite being widely utilised around the world this method was castigated and falsified by medical professionals. From May 1933 to February 1935 as many as 239 out of 476 destitute women who received services from the Beijing Maternal and Child Health Association (北京妇婴保健会) chose to use cotton with a lactic acid solution at first. However, the failure rate could be as high as 70% and a follow-up survey showed that many participants had switched to cervical caps.<sup>504</sup> Only when it was the only method available or it was an emergency were people recommended to use this minimum level of protection. The danger of residues was also one of the

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<sup>503</sup> Jon Knowles, 'A History of Birth Control Methods' Report published by the Katherine Dexter McCormick Library and the Education Division of Planned Parenthood Federation of America, p. 6. [https://www.plannedparenthood.org/files/2613/9611/6275/History\\_of\\_BC\\_Methods.pdf](https://www.plannedparenthood.org/files/2613/9611/6275/History_of_BC_Methods.pdf). Online accessed on 19.01.2020.

<sup>504</sup> 'Beiping Fuying Baojianhui Dierci Baogao' (北平妇婴保健会第二次报告 The Second Report of Beiping Maternal and China Health Association), *Beiping Chenbao: Population Supplement* (北平晨报·人口副刊), no. 40, 07. 07. 1935, p. 5.

main reasons to eliminate this method. However, its persistence shows the limited reach of the newer medical methods of contraception.

### **The Intrauterine Device (IUD)**

An IUD is a device inserted through the cervical canal into the uterus to prevent sperm and eggs meeting by either immobilising the sperm on its way to the fallopian tubes or by changing the uterine lining in order that the fertilised egg cannot implant in it.<sup>505</sup> The IUD can be a coil, loop, triangle or T shape.<sup>506</sup> Most IUDs in the present day use an electrolytic copper coating utilising its spermicidal effect.<sup>507</sup> Before becoming one of the most commonly used contraceptive devices in the world and in China, the IUD was controversial and was associated with such problems as pelvic inflammation, menorrhagia and perforation.<sup>508</sup> Furthermore, its lack of protection against sexually transmitted diseases from the lower genital tract was another drawback.<sup>509</sup> The troubled history of the IUD began in 1909 when Dr Richard Richter from Germany published his paper on the first genuine IUD. He

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<sup>505</sup> William C. Shiel Jr., MD, FACP, FACR, Medical Definition of IUD, <https://www.medicinenet.com/script/main/art.asp?articlekey=4063>, accessed on 26. 01. 2020..

<sup>506</sup> William C. Shiel Jr., MD, FACP, FACR, Medical Definition of IUD, <https://www.medicinenet.com/script/main/art.asp?articlekey=4020>, accessed on 26. 01. 2020.

<sup>507</sup> Cheryl Asa, Mary Agnew, *Fowler's Zoo and Wild Animal Medicine*, Volume 8, 2015, pp. 735-9. <https://www.sciencedirect.com/topics/veterinary-science-and-veterinary-medicine/intrauterine-device>, 26. 01. 2020.

<sup>508</sup> Ann Glasier, 'Chapter 134: Contraception', *Endocrinology: Adult and Pediatric*, 2016, pp. 2297-2309. <https://www.sciencedirect.com/topics/veterinary-science-and-veterinary-medicine/intrauterine-device>, accessed on 26. 01. 2020.

<sup>509</sup> M. Thiery, 'Pioneers of the Intrauterine Device', *The European Journal of Contraception and Reproductive Health Care*, 2 (1997), pp. 15.

fashioned the flexible ring made of two strands of silkworm gut. A filament united the threads to facilitate retrieval of the device. Sadly aware of the psychosexual disturbances of women due to dissatisfactory contraceptive methods, Dr Ernst Gräfenberg undertook research on a serviceable IUD at the start of the 1920s.<sup>510</sup> As he published his clinical results on the modified IUD made of helicoidally wound silver filaments, his research was denounced by other gynaecologists in Europe as being a medically unacceptable method. Even worse, the Nazi regime began removing Jewish physicians from workplaces and announced that contraception was to be deemed illegal in Germany. Other Axis States, such as Japan, followed.<sup>511</sup> In Japan, before contraception became embargoed when Japan joined the Axis, Dr Tenrei Ota was the pioneer experimenting with various materials and shapes.<sup>512</sup> In general, the IUD was in a formative period in both Europe and Asia and reliable products were not universally legitimated during the 1940s.

The IUD was named ‘节育环’, which meant ‘contraceptive ring’, when introduced in China. Advertisements were visible in daily newspapers and journals when the IUD entered the medical market. The advertisement below lists the four advantages of the IUD when compared with other

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<sup>510</sup> M. Thiery, ‘Pioneers of the Intrauterine Device’, p. 16.

<sup>511</sup> M. Thiery, ‘Pioneers of the Intrauterine Device’, p. 17.

<sup>512</sup> M. Thiery, ‘Pioneers of the Intrauterine Device’, p. 18.

devices, namely ‘Wear it in one operation’, ‘Can still conceive after removal’, ‘Does not interfere with intercourse or menstruation’ and ‘Comfortable and permanent’. In addition to exaggerating the products’ efficacy, such advertisements often emphasised that a female doctor would perform the surgery to accommodate women’s need for privacy.



Figure 13. Birth Control Gospel (节育福音), 1942 <sup>513</sup>

The exaggeration of these advertisements was usually due to the lack of notification about safety issues and possible side effects. Concerning the disadvantages, Guo in his *Practical Contraception* reminded readers that, although this device need only be renewed once or twice a year, there was a risk of conceiving with the ring remaining in the uterus. Due to this situation,

<sup>513</sup> ‘Jieyu Fuyin’ (节育福音 Birth Control Gospel), *Shenbao*, 19. 01. 1942, p. 3.

the ring might deform the child and could not be removed after delivery, except by a hysterectomy. The ring might also cause inflammation and then miscarriage and permanent infertility, especially as low-quality devices rust over time. To deal with these hidden dangers he could only suggest strict sterilisation during operations to avoid inflammation and anaesthesia during the uterine dilation to reduce the pain.<sup>514</sup>

The IUDs proposed by Richard Richter in 1909 and modified by Ernst Gräfenberg in the 1920s and 1930s were not only ignored but also prescribed for political and religious reasons like other contraceptive devices. Although the IUD in China did not face such strong objection, its immaturity in development and lack of protection against venereal diseases hampered its popularity in Shanghai in the 1940s.

### **Surgical Sterilisation**

Methods of destroying reproductive function by surgery emerged very early in China. The castration of men was called *geshi* (割势) and it is believed that the equivalent operation for women was called *youbi* (幽闭). The *Zuo Zhuan* or *Commentary of Zuo* (左传) was the earliest to record *geshi* and *youbi* together as the Gong punishment, which was analysed as punishment for

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<sup>514</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception).

fornication. Its complete original text was ‘Gong, the punishment for fornication, which is ‘geshi’ for men and ‘youbi’ for women. Second only to the death penalty.’<sup>515</sup> ‘Geshi’ has long existed and has been described in penal laws and official historical writings as ‘removing genitals’ from the Qin Dynasty to the Qing Dynasty. It is the main basis for some historians and contemporary dictionaries speculating that ‘youbi’ is a form of castration for women in the Zuo Zhuan.<sup>516</sup> Following this perspective, Pu Jian, the author of the entry ‘gong penalty’ (宫刑) in the *Encyclopaedia of China* adopted ‘striking penalty’ (椽刑) to explain how *gong* was initially carried out in practice. Furthermore, in his ‘A Tentative Study of gong penalty’, this conjecture was explained in detail. According to his research, before metal was widely used, men and women who committed fornication would be struck on their genitals and abdomen until their reproductive organs were destroyed, a process that originated in the Xia dynasty. Records of cutting off male genitals only emerged in the following Shang dynasty when bronze ware began to appear in abundance. However, this brutal striking method was retained as a punitive measure to practice the gong penalty with licentious women.<sup>517</sup> Against Pu Jian’s assertion, Zhao Hejun argued that

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<sup>515</sup> ‘Kong Anguo Zhuan’, (孔安国传 Kong Anguo Biography), Kong Yingda edited *Shangshu Zhengyi* (尚书正义), vol. 19, (Beijing: Zhonghua Book Company, 1980), p. 249.

<sup>516</sup> *Cihai*, (Shanghai: Shanghai Lexicographic Publishing House, 2009), p. 2766.

<sup>517</sup> Pujian, ‘Gongxing Xiaoyi’, (‘宫刑’小议 Discussions on ‘Gong Punishment’, *Legal Studies*, 2 (1994), p. 88.

'youbi' was a 'penalty on paper' and has never existed in reality. The 'gong penalty' exclusively refers to 'cutting off male genitals'.<sup>518</sup> In general, there is no evidence that such forms of sterilisation were common practice for a contraceptive purpose.<sup>519</sup>

In Europe and America castration was an early form of sterilisation. August Forel, a Swiss psychiatrist, sterilised a female patient with sexual neurosis in 1866 and several more for eugenic reasons in 1892. However, the fact that castration caused a disorder of the endocrine balance made it a difficult decision for patients. Edwin Kehrler in Germany and Albert J. Ochner in America successfully performed operations tying the fallopian tubes in a woman and vas deferens in a man, which were then the recognised standard practices of sterilisation.<sup>520</sup> Nevertheless, having medical technology and skills did not logically bring sterilisation into the scope of the birth control movement. The history of sterilisation as a contraceptive measure is a search of its justification and a revolution in public and medical opinions.<sup>521</sup> The sterilisation movement is the untold story of the birth control movement, according to Ian Dowhiggin, who has highlighted many activists and

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<sup>518</sup> Hejun Zhao, 'Youbi Kaobian', ('幽闭'考辨. A Study on "Youbi" as the Castration for Women in Ancient China), *Journal of Graduate School of Chinese Academy of Social Sciences*, 7 (2019), p. 50.

<sup>519</sup> Bozhong Li, 'Duotai, Biyun yu Jueyu -- Song Yuan Ming Qing Shiqi Jiangzhe Diqu de Jieyu Fangfa jiqi Yunyong yu Chuanbo', *Chinese Academic*, 1 (2000), p. 86.

<sup>520</sup> Francis B. Harmon, 'The Social Philosophy of St. Louis Hegelians', PhD. Dissertation Columbia University, 1943, pp. 11, 83.

<sup>521</sup> David Wolfers, Helen Wolfers, 'Vasec'tomania', *Family Planning Perspectives*, vol.5, 4 (1973), pp. 196-9.



gynaecologists advocating eugenic sterilisation, but overshadowed by Margaret Sanger, such as Marian Olden, Clarence Gamble, Robert Latou Dickinson and Paul Popenoe.<sup>522</sup> The immediate origin of this movement was the fear of reproduction by the so-called feebleminded.<sup>523</sup> Dr Harry. C. Sharp, a physician in the Indiana State Reformatory, asserted that sterilisation was the best and noblest answer to this societal concern when compared with other solutions, such as marriage laws and segregation.<sup>524</sup> Before the passage of the pioneer law in 1907 in his state, he had illegally carried out collective vasectomies on several hundred males.<sup>525</sup> Following the legal inception of this movement in the U.S. in 1907, H.H. Laughlin estimated that 15,156 people had been sterilised by December 1, 1931.<sup>526</sup> After World War I more than twenty states passed sterilisation legislation. The growth of eugenic and socioeconomic concerns was a major stage in the progress of sterilisation, the political philosophy of which was 'The life of the commonwealth takes precedence over the right of reproduction of the

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<sup>522</sup> Ian Dowbiggin, *The Sterilization Movement and Global Fertility in the Twentieth Century*, (New York: Oxford University Press, 2008), pp. 3, 17-72.

<sup>523</sup> Donald K. Pickens, 'The Sterilisation Movement: The Search for Purity in Mind and State', *Phylon* 28, 1 (1967), p. 78.

<sup>524</sup> Dr. Sharp's Indinan Plan to 'Render Sterile Confirmed Criminals and Mental Defectives', <https://historyengine.richmond.edu/episodes/view/6618>. Accessed on 12.02.2020.

<sup>525</sup> Albert Deutsch, 'Changing Concepts in Mental Defect', edited by William A. White, *The Mentally Ill in America – A History of Their Care and Treatment from Colonial Times*, (New York: Columbia University Press, 1937).

<sup>526</sup> J.H.Landman, 'The Human Sterilization Movement', *Journal of Criminal Law and Criminology* (1931-1951), vol. 24, 2(1933), pp. 400-8.

individual’, as the American Hegelianism, Charles B. Davenport, stated.<sup>527</sup> Margaret Sanger shared such views and perceived sterilisation of the insane and ‘feeble-minded’ as the only solution to address the need for a higher birth rate among the intelligent.<sup>528</sup> Thus, to some extent, the legislation of sterilisation was a top-down political movement against the emancipation of reproductive rights.

Furthermore, in China, under the dominance of the traditional patriarchal ideology, few men underwent sterilisation, according to Guo Qingquan. Men believed that ‘this type of contraceptive surgery should be performed on women to maintain men's reproductive function’.<sup>529</sup> Families were dominated by men, and their financial resources also depended on men. On one hand, if a husband died, remarriage by his widow was rare. Thus, her reproductive function was considered to be useless. On the other hand, if a woman died, the husband would often remarry, in order to manage his domestic affairs and to have more children. Therefore, it was viewed as important to maintain the reproductive function of men.<sup>530</sup> Despite this patriarchal and partial treatment towards them, some women, working

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<sup>527</sup> Donald K. Pickens, ‘The Sterilization Movement: The Search for Purity in Mind and State’, *Phylon*, Vol.28, 1 (1967), p. 87. Charles B. Davenport’s quote see Margaret Sanger (ed.), *Proceeding of the World Population Conference, 1927* (London, 1927), p. 242.

<sup>528</sup> Margaret Sanger, ‘The Function of Sterilization,’ *The Birth Control Review*, 10 (1926), p. 299.

<sup>529</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 50.

<sup>530</sup> Guo Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), p. 50.

women in particular, decisively demanded a sterilisation operation, in order to prevent childbearing from becoming an obstacle to their social and professional activities.

In December 1948 the *Women's Magazine* sought the opinions of women from all walks of life on the topic 'How do we take care of work and housework?' One reader, Hu Guifen, bravely shared her personal experience as a housewife who underwent sterilisation. She described herself as a young woman with high ambitions, in that she would never be a parasite of her husband. However, the reality of marriage shattered her expectations, with one birth after another. After spending six years taking care of three new babies she decided to dedicate herself to society. Following a few months of persuasion, she also obtained her husband's permission and finally had her fallopian tubes ligated. When asked by her doctor if she understood she would never have a child again, she fearlessly answered 'I do'. She left all of the domestic matters to her servants and devoted herself to her profession.<sup>531</sup> Hu's success in seeking financial independence and a balance between her domestic and professional life through a sterilisation operation set an example for other female readers. However, from her narrative, this family decision was based on sufficient income to afford the

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<sup>531</sup> Guifen Hu, 'Yong Buhui Zaitian Haizi le' (永不会再添孩子了 Never Have More Children), *Women (妇女 Funü)*, 12 (1948), p. 7.

operation and to hire servants for her three children, which was unattainable for most families, not to mention having a relatively open-minded husband. Concerns about the safety of sterilisation also contributed to reluctance to access sterilisation.

Tracing the above contraceptive equipment from its Western origin to Chinese appropriation shows the different levels of development and public acceptance. Most importantly, whether strictly following their doctor's instructions or not, people in Shanghai engaged with various types of medical equipment. Most users seemed to be from middle class families and, therefore, the degree of dissemination could be very limited. On this issue, journalist Agnes Smedley, who was a close friend of Margaret Sanger, inspected the birth control clinics operated by the Young Women's Christian Association (YWCA), which was sponsored by Sanger, and expressed her frustration. She complained that the clinics only opened twice a week and the Shanghai Birth Control League (SBCL) she visited was equally inefficient.<sup>532</sup> She finally stated that birth control could be implemented among the middle classes in China. A report on the SBCL by the *North-China Herald* proved her point. It confirmed that, within two years of its operation, around 300 women had dropped in for contraceptive information, 236 of

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<sup>532</sup> Smedley to Sanger, LCM 10–539.

whom had a monthly income of between 20 Yuan and 300 Yuan.<sup>533</sup> Low literacy rates and low family income were the two main factors that slowed down the progress of the birth control movement. With the influence of the earlier propaganda on 'race improvement', there was a tendency for contraceptive knowledge and products to be the superior element of a 'modern' and patriotic lifestyle. A significant reason for this inequality is the dominant role of the medical market and the absence of supportive governmental policies.

To conclude, the birth control movement in China was a significant part of the global birth control movement and women's liberation movement. The theory of eugenics was introduced in China and was transformed by intellectuals into a theoretical basis of the self-strengthening movement in the early 1900s. The visits by Margaret Sanger, to a certain extent, inspired and informed women of the existence of contraceptive science, which led to unprecedented discussions of birth control in various magazines and newspapers. Although Sanger did not have the opportunity to get in touch with Chinese women during the series of male-dominated events, articles and correspondences by female readers showcased the urgent needs and a sizeable potential market for contraceptive products. The medical

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<sup>533</sup> 'Birth Control in Shanghai: Total of 360 Cases Studied during Two-Year,' *North-China Herald and Supreme Court & Consular Gazette (1870–1941)*, 23. 04. 1937, p. 150.

professionals had noted both the opportunity for building up a medical authority and the challenge of promoting such foreign technology nationwide.

Advances in contraceptive science had made it possible for people to choose to control their family size. Research on the instruments discussed above in Republican China highlight some factors that influenced people's choices regarding which method they would prefer to apply. The ideal contraceptive would be effective, easy to use, safe, accessible and affordable. Due to these aspects, condoms and vaginal diaphragms gained more support from physicians, yet none of the methods could be seen as prevailing among ordinary families, mainly due to financial reasons. Fundamentally, it was the shortage of funding that resulted in inaccessible prices for ordinary people. Therefore, doctors' efforts to build professional authority through the medicalisation of birth control failed due to lagging medical manufacturing in addition to their ignorance of women's financial circumstances. To a degree, social factors including income, education, financial support played a more important role compared to medical development in popularising birth control products and practices.

Advertisements showed that contraceptive products were mainly aimed at middle class female customers. Women were seen as being the main bearers of fertility and birth control. Even the relatively popular condoms were sold as a venereal disease defence rather than a contraceptive tool for families. Many advertisers viewed women as the lynchpin of opening the market for domestic products. In some cases women's voices and stories were used to promote the so-called pain-releasing products in the name of women's liberation. Less educated groups and lower income classes had less access to contraceptives. Although women participated in the raising of awareness of birth control in the decades following Margaret Sanger's visit to China, male doctors and politicians were the leaders in the realm of political and social reform. There was no Chinese Margaret Sanger. More significantly, there was no complete birth control movement in China that reflected real individual liberation.

The Shanghai government's administrative intervention started relatively late and crudely. In 1936 the Hunan Health Station and Hubei Health Station under the jurisdiction of the Shanghai Health Bureau made birth control a part of their maternal and child health work by persuading women who had

experienced a high number of births to use birth control instruments.<sup>534</sup> In 1947 the Shanghai Municipal Maternal and Child Health Hospital established by the Shanghai Health Bureau provided free delivery and postpartum care for poor mothers and provided birth control consultation and guidance.<sup>535</sup> In contrast to the United States, China's central government did not have substantial control and power over the details of reproductive health. Thus, the entry of birth control products was not faced with restrictive legalisation, but there was a lack of regulation related to the quality and usage of birth control products. Only in 1947, after the Anti-Japanese War, faced with the chaos and disorder of the medical market, did the Health Bureau issue *The Interim Rules on Prohibiting Medical Advertisements in Shanghai Special City*. These rules banned advertisements of 'prevention of sexually transmitted diseases or contraception, aphrodisiac, abortion and other products indecent enough to affect good customs'.<sup>536</sup> In August 1947 the 'Shanghai Municipal Health Bureau's Regulations on the Administration of Pharmaceutical Publicity Materials' declared that 'medical publicity materials

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<sup>534</sup> Xi Ling, 'Shanghaishi Weishengju Hunanqu Weisheng Shiwusuo Kaiban Fuying Weisheng Jihua Caoan' (上海市卫生局沪南区卫生事务所开办妇婴卫生计划草案 Draft of Maternity and Infant Hygiene Plan for Shanghai Municipal Health Bureau's Hunan District Health Office), *Hygiene Monthly*, Vol. 7, 2(1937), p. 54.

<sup>535</sup> Shanghai Archives, Q400-1-3382, 'Shanghaishi Weishengju Guanyu Shimin Jieyu Biyunso, Yixue jiankang Baojian Ziliao, Yingyang de Wenti de Wanglai Wenshu 1947' (上海市卫生局关于市民节育避孕所、医学健康保健资料、营养等问题的来往文书(1947)).

<sup>536</sup> Shanghai Archives, S284-1-92, 'Shanghaishi Weishengju deng Danwei Banbu de Qudi Yiyao Guanggao Guanli Yaojisheng, Xiuzheng Guanli Zhushiqi deng Gexiang Zanzing Guize 1947' (上海市卫生局等单位颁布的取缔医药广告管理药剂生、修正管理注射器注射针等各项暂行规则 Provisional Rules Promulgated by the Shanghai Municipal Health Bureau and other Units to Ban Pharmaceutical Advertisements for the Management of Pharmacies and Amend the Management of Pharmacies and Amend the Management of Syringes and Needles (1947)), p. 1.



must not have false or exaggerated or obscene phrases'. Consequently, advertisements for sexual products were mostly prohibited.<sup>537</sup> Consequently, in the late 1940s the popularisation of birth control products slowed down due to the government's policy, which intervened in people's personal lives.

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<sup>537</sup> Shanghai Archives, Q400-1-2859, 'Shanghaishi Weishengju Guanyu Qudi Weizhang Yiyao Guanggao' (上海市卫生局关于取缔违章医药广告 Shanghai Municipal Health Bureau on Banning Illegal Medical Advertisements (1946)), p. 11.

## **Chapter 6. Conclusion**

The coronavirus outbreak has recently brought the study of public health history into the public eye again. The government's research on this epidemic, the formulation of epidemic prevention strategies, the implementation methods, the media propaganda and supervision share many similarities to previous epidemics, in particular the popularisation of medical equipment and promotion of medical products closely related to life. Masks, for example, have participated in the rebuilding of people's living habits. The changing understanding of their functions, their production and promoting strategies, the resistance, and even protests against them, and accepting them as a dress code all contribute to a typical case of the inter-discipline of medical history and material cultural history. The majority of the population, from government officials, medical experts, medical companies and pharmacies to the general public, have been gaining information about this epidemic and forming interpretations accordingly.

On one hand, the penetration rate of masks and the number of infected people, to a certain extent, have become the standard for judging whether the government's attitude towards epidemic prevention is rational, whether the strategy of immobilising the masses is effective and whether the public's

awareness of epidemic prevention has been raised. On the other hand, regarding the regions that have recovered from the epidemic, removing masks or living without the necessity to wear one also showcases the effectiveness and joint effort by the collective. Those phenomena all reflect the tortuous process of medical supplies entering people's lives.

Furthermore, the so-called modern public health system has become stable and sound in many countries. However, as 2.8 million people have died so far from the coronavirus, the response of their public health systems to this epidemic have exposed many shortcomings. While reflecting on the improvements of the existing system, it makes us rethink and re-evaluate the difficulty and complexity the public health system was facing when it first came into being in China in the Republican period.

In Republican China, from 1912 to 1949, different governments, particularly the Guomindang government, following the model of the Western regimes, such as Germany, Japan, the U.K. and the U.S., conducted continuous political, economic and cultural reforms to strengthen their nation. The Western authorities also exerted influence in the treaty ports, especially Shanghai, with the ambition of maximising stability and profit in China.

As well as governmental policies, the intersection of the Chinese and Western culture was also facilitated by the rising industry and commerce, which transmitted materials, and the growing media that collected and disseminated information about those materials. The development of Chinese society featured extensive communication between the Chinese and foreign cultures. The nature of this communication and how it influenced both sides are important topics for research on Chinese modern history.

At the end of the nineteenth century and the beginning of the twentieth century China's understanding of the human body and its treatment methods at the treaty ports also experienced significant changes. Together with the armed imperialists, the Protestant missionaries operated daily pharmacies and hospitals, treated patients and performed operations. They created a new physical space for medical activities and trained Chinese students in Western medical institutions. At the same time their 'scientific' knowledge and practices were translated into books and manuals, both verbally and textually, building bridges between the 'Western medicine' and the local public.

In this context my research explores the transmission of Western medical equipment in Republican Shanghai from 1912 to 1949. Focusing on the

interaction between the medical equipment and the political structures, cultural reflection, social activities and personal experiences, the dissertation captures those changes while reassessing the broad issues of professions, media and gender in a cross-cultural context. To summarise, my thesis examines the sweeping social changes in the city of Republican Shanghai by examining the production and adaptation of Western medical materials to their users, and their influences economically, politically and culturally. During this period, with the popularisation of medical knowledge, the medical equipment analysed, regardless of support or resistance, embodied the characteristics of Shanghai's modernisation and nationalism in the three dimensions of space, time and body.

As far as imperial China is concerned, in the event of an epidemic, two forces would play significant roles: one is the local government organising and carrying out rescue activities, and the other is disaster relief activities, especially local sages who often played an active part. However, these were not their primary responsibilities and it depended on the local leaders' personal abilities and abundance of local medical resources. Chinese society's response to infectious diseases focused on 'avoidance' and 'treatment' rather than 'prevention', and the political administration lacked proactive systems involving public power, which resulted in substantial

population losses. In the late Qing Dynasty, with the introduction of 'Western' medical knowledge, the Qing Dynasty's epidemic prevention work began its 'modernisation' process. During the Northeast Plague in 1910-1911 Wu Liande, who graduated from Cambridge University in medicine, created a series of effective preventive measures to enable the Qing government to control the epidemic in less than four months.<sup>538</sup> Those attempts in biomedicine and disease prevention were the beginning of government forces' involvement in public health.

This dissertation firstly highlights the political efforts to construct a public health system in Chapter Two, drawing evidence from the official publication *Weisheng Yuekan* (卫生月刊 Health Monthly) and the Shanghai Municipal Archives. By analysing the strategies embodied in the policies, I demonstrate that the Nanjing government had been selectively referring to experience and models from other countries while exploring a path that suited Shanghai's distinctive features. Correspondingly, there are two characteristics in the formulation and implementation of policies. Firstly, the popularisation of relevant medical equipment within the public health system reflects the connection between modernity, the nation-state's discourse and local circumstances. People took national responsibilities by

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<sup>538</sup> Junying Wu, 'Cong Dongsansheng Shuyi Wenti Kan Qingmo de Neizheng yu Waijiao(1910-1911)', *Guoshiguan Guankan* (国史馆馆刊), 20 (2009), pp. 39-70.

participating in x-ray tests and students in primary and middle schools had become the key target for the promotion of health examinations as the 'future' of the nation. Furthermore, disease prevention mainly focused on tuberculosis, based on the evaluation of the disease's mortality rate in Shanghai. Secondly, health's administrative capacity depends heavily on continuous financial investment and maintaining long-term stability of power, which was difficult to achieve in a Republic China suffering from frequent wars. This led to a very limited number of students gaining access to the diagnostic equipment and dental clinics.

Compared with the government's administrative slowness and financial constraints, various non-governmental forces tried to transform health knowledge into practice in a piecemeal manner.

Drawing reports and editorials from the media, mainly *Shenbao* ( 申 报 ), I demonstrate in Chapter Three that the imported medical equipment and their derivative products enriched the rising printing industry and how those equipment-centred practices dispersed via the vehicle of words. Furthermore, the promotion of the equipment benefited from the leading position in the publishing industry. With the media's and medical professionals' efforts, the print culture served as a powerful agent cooperating with the government's

instructions and collecting feedback from readers. Certain influential newspapers, such as *Shenbao*, served as the connecting chains between the authority, medical institutes and the public. Despite restrained funding, readers and a lack of systematic strategy from the government for using the media, those newspapers made a contribution in building a positive image for medical equipment, such as X-ray machines, syringes and thermometers.

Regarding the popularisation of medical equipment by the media, my research highlights the media's contribution in illustrating to the public how the imported medical equipment could fit into the public health system. By presenting the many findings of media outlets of various types of medical equipment, this dissertation fills the gaps in the research on medical advertisements and articles in the media, which mainly focus on medicine. By utilising a wide range of primary sources, including advertisements, news reports, public announcements and columns for medical knowledge and public discussion, my investigation shows that the most common types of medical equipment promoted by the media were X-ray machines, stethoscopes, microscopes, artificial pneumothorax apparatus and blood pressure gauges. As local manufacturers became able to produce some smaller medical products, such as syringes, needles, scalpels and astral lamps, the medical contents, their products and selling strategies showcase a



flourishing business culture in Shanghai. By introducing the expensive medical equipment and stressing the 'foreignness' and the 'newness', hospitals and clinics took ownership of the latest medical equipment as a major advantage. For some patients using the medical equipment became a symbol of status, with a comfortable recovering environment prepared by the hospitals. A well-equipped operating room was also a symbol of guaranteed success in treatment in the advertisements. In this case, as well as the hospitals and clinics, the degree of professionalism and the popularity of doctors was also related to the medial equipment they used and which country they were trained in. This provides evidence that the classification of physicians is not as simple as Western doctors and Chinese doctors.

In my study medical equipment is not just an invention in the field of medicine, but is attached to cultural and social meanings. Medical equipment also became a key factor in the image of a modern nation built by the media. People's imagination of a modern lifestyle, to an extent, was given rather than being detected by the medical advertisers. Some medial equipment embodied cultural meanings according to medical writers' and social observers' understanding of their functions. For instance, 'X-ray' referred to the ability of seeing through appearance to the essence, which is further evidence of the appropriation of foreign things.

To conclude, through the promotion in the media, marketing needs were largely fulfilled and policies were about to be acknowledged and pursued beyond the educated to reach a larger audience.

An important manifestation of the body's social nature is that the body is gendered.<sup>539</sup> In a social structure dominated by patriarchy the female body is the focus of power control. To achieve the goal of *Qiangguo qiangzhong* (强国强种 strengthening the country and race), it became a characteristic of China's modernisation that bringing up healthy female citizens meant creating stronger offspring. To achieve this goal the government promoted birth control to ensure high-quality fertility and improved midwifery to reduce the maternal and infant mortality. Specifically, it was to train traditional midwives' delivery skills while training new midwives. The core of these measures was the application of new birth delivery equipment and disinfection measures. Regarding birth control products, there was neither restrictive legalisation nor regulation related to the quality and usage of birth control products, due to the limitation of administrative power and the lack of supervision of the market overall.

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<sup>539</sup> On the meaning of body and the society, see Bryan S Turner, *The Body and Society*, (New York: SAGE Publications Ltd, 2008).

The medical products explored in these two chapters are feminine sanitary products, birth control products and the instruments used by modern midwives symbolising their training and differentiation from traditional midwives.

First, this thesis proves a very detailed investigation of the birth control products recommended by medical experts and used in Imperial China and Republican China to provide an understanding of the evolution of the methods. By examining the engagement of people from different backgrounds, such as gender, professions, financial ability, education and family structures, the thesis demonstrates the many factors influencing the acceptance of those strange products. It also stresses the importance of the voices of women who had been accepting most of the responsibility and pain of giving birth, although the male intellectual initiated the birth control movement. Regarding the contraceptive products that might cause pain and damage to women's bodies, reviews and feedback from the female consumers were crucial to the improvement of the products, which proves that there is no such concept as a 'developed' or 'advanced' product, at least in the field of contraception.

In terms of childbirth technology, choosing what medical equipment and method in practice was a matter of life or death. However, the promotion of 'Western midwifery' encountered the deeply trusted '*chanpo*' (产婆 traditional midwives). Therefore, the tools used by *chanpo* became the main target of criticism by the reformers, and for this reason *chanpos* had the option to re-educate themselves with the required tools, instead of being removed from childbirth activities. My study on the reform of midwives indicates the compromises of both 'Western medicine' and 'traditional medicine'. The delivery equipment in this case was the one thing that must change, due to its key role in reducing the mortality rate of mothers and infants.

As I demonstrate in this dissertation's Chapters Four and Five, the reinterpretation of body brought changes in social and family life. Out of a sense of national crisis, the government and the media reconsidered women's responsibilities to their families and their country. As a result, medical technology for childbirth and birth control became the focus of attention and transformation for a strong race. My research on the reforms of childbirth and birth control methods showcases that medical materials affected daily life, even the intimacy among family members, embodied with sublime missions and meanings.

In this case, rather than judging what is modern and traditional, progressive and backward, new and old, Western and Chinese, which was derived for political and commercial purpose, the dissertation focuses more on people's commitment to a better life experience and social environment. Facing the many options of unfamiliar medical equipment that might improve their lives, people had shown different levels of interest, in considering their financial ability, personal belief and education background. Therefore, this dissertation pays much attention to the cost of using the equipment and the users' reviews, avoiding distinguishing classes and identities. With the belief that, no matter whether policy makers, medical experts or consumers, all people have the equal right to decide what medical equipment they want to experience.

To conclude, the driving force of social reform during the Republic of China was the grand ideal of a powerful country and the choice made by every ordinary person through the information received. The overlap of medical space, personal space and social space is the inseparability of health knowledge and power. Medical equipment, with its flexibility in location, was brought closer to people's lives than hospitals. When the imported medical equipment started spreading in the medical market, it presented complex and diverse aspects in specific practice. Part of the reason is that different

people were exercising power in their own way, resulting from behaviour of confronting and avoiding, financial ability or social class, and educational background in a multicultural context.

This dissertation demonstrates the complexity and individuality of Shanghai's modernisation process. Compared with other studies, this dissertation not only analyses and evaluates the government's policy-making and implementation approaches for disease response and the promotion of medical equipment, but also reflects Shanghai's publishing culture, fertility culture and personal experiences in the selection and use of medical equipment. This dissertation emphasises the subjective initiative of people to improve their lives and social environment, facing the potential opportunities and challenges brought by the emergence of various medical equipment.

## Bibliography

### Primary Sources

#### Periodicals and Newspapers

*Chenbao Fujun* 晨报副镌 Morning Daily Supplement, 1920~1928, Beiping :

Chenbao She

*Dongfang Xiaoshuo* 东方小说 1923~?, Shanghai: Dongfang Nüzi Advertising

Agency

*Dongfang Zazhi* 东方杂志 The Eastern Miscellany, 1904~1948, Shanghai,

Changsha, Chongqing, Hong Kong: The Commercial Press

*Funü Zazhi* 妇女杂志 Lady's Journal, 1915~1931, Shanghai: The Commercial

Press

*Haichao Weekly* 海潮 1946~?, Taipei: Haichao Magazine Press

*Minlibao* 民立报 People's Independence Newspaper, 1910~1913, Shanghai:

Minlibao she

*Shanghai Yishi Zhoukan* 上海医事周刊, 1935~, Shanghai: Chinese Medical

Association Shanghai Branch

*Shehui Yiyao Bao* 社会医药报 1934~1937, Shanghai: Social Medicine

Newspaper Press

*Shenbao* 申报 Shanghai News, 1872~1949, Shanghai: Shenbao Press

*Tongji Yuekan* 统计月刊 The Statistical Monthly Magazine, 1918~1923,  
Shanghai: Statistical Directorate of the General-Directorate of Budget,  
Accounts and Statistics, National Government of China

*Xinmin Ribao* 新民日报 1928~1931, Haikou: Donghua Yinwuju

*Xin Nüxing* 新女性 New Women, 1926~1929, Shanghai: Funüwenti Yanjiuhui

*Xinshenghuo Zhoukan* 新生活周刊 1934~1936, Tianjin, Nanjing:  
Xinshenghuo Zhokanshe

*Yichao* 医潮 1947~?, Beiping: Bingyin Yixueshe

*Yijie Chunqiu* 医界春秋 1926~?, Shanghai: Yijie Chunqiushe

*Yixue Zhoukan* 医学周刊 1928~?, Beiping: Bingyin Yixueshe

*Yiyao Zazhi* 医药杂志 1920~?, Shanghai: Zhongguo Yiyao Zazhishe

*Zhongguo Ribao* 中国日报 1931~1949, Nanjing, Tunxi: Fuxing Society

*Zhongguo Yixue Zazhi* 中国医学杂志 The Chinese Medical Journal, 1915~,  
Shanghai: Chinese Medical Association

## **Medical Books**

*Furen Daquan Liangfang* 妇人大全良方 Complete Collection of Prescriptions  
for Women, 1237AD, Chen Ziming



*Huang Di Nei Jing* 黄帝内经 Inner Canon of the Yellow Emperor/ Esoteric Scripture of the Yellow Emperor,

*Ishinpō* 医心方 912~95 AD, Tanba Yasunori

*Mai Jing* 脉经 Pulse Classic, Wang Shuhe

*Nan Jing* 难经 Difficult Classic, Bianque

*Shang Han Za Bing Lun* 伤寒杂病论 Treatise on Cold Pathogenic and Miscellaneous Diseases, Zhang Zhongjing

*Shen Nong Ben Cao Jing* 神农本草经 Shennong's Classic of Materia Medica, Shennongshi

*Simin Yueling* 四民月令 Cui Shi

*Taiping Yulan* 太平御览 Imperial Readings of the Taiping Era, Li Fang

*Yushi Beichan Jiyongfang* 虞氏备产济用方

## **Government Documents**

31.07.1928 Guanli Jieshengpo Guize 管理接生婆规则 Midwife Management Regulation

11.12.1928 Quanguo Weisheng Xingzheng Xitong Dagang 全国卫生行政系统大纲 National Health Administration System Outline

15.01.1929 Yishi Zanxing Tiaoli 医师暂行条例 Interim Regulations for Physicians

16.04.1929 Guanli Yiyuan Guize 管理医院规则 Hospital Management Regulation

21.05.1929 Zhuchanshi Tiaoli 助产士条例 Midwife Ordinance

21.03.1930 Guanli Zhusheqi Zhushenzhen Zanxing Guize 管理注射器、注射针暂行规则 Interim Rules for Managing Syringes and Injection Needles

19.08.1930 Shanghaishi Zhengshi Xiyaoshang Yiliaoqixieshang Dinggou Yiliao Qixie Shouxu Shuoming 上海市正式西药商、医疗器械商订购医疗器械手续说明 Procedures for Ordering Medical Equipment from Shanghai Official Western Medicine Dealers and Medical Equipment Dealers

18.09.1930 Chuanranbing Yufang Tiaoli 传染病预防条例 Infectious Disease Prevention Regulations

17.11.1934 Xiuzheng Guanli Zhusheqi Zhushenzhen Zanxing Guize 修正管理注射器、注射针暂行规则 Amendments to the Provisional Rules for the Management of Syringes and Injection Needles

25.03.1935 Xiyaoshang Yiliaoqixieshang Zhizao ji Fanmai Zhusheqi Zhushenzhen Guize 西药商、医疗器械商制造及贩卖注射器、注射针规则 Rules for the Manufacture and Sale of Syringes and Injection Needles by Western Medicine Dealers and Medical Device Manufacturers

22.06.1939 Xiuzheng Guanli Jieshengpo Guize 修正管理接生婆规则

Amendment of Regulations for Management of Midwives

08.08.1940 Zhuchanshi Zanxing Tiaoli 助产士暂行条例 Interim Regulations

on Midwives

30.09.1943 Zhuchanshi Fa 助产士法 Midwife Act

### Secondary works

Ackerknecht, Erwin H., 'Social Medicine, and the History of Medicine',

*Bulletin of the History of Medicine*, 81 (2007), 511-32.

Adshead, S. A. M., *Material Culture in Europe and China, 1400-1800* (New

York: St Martin's Press, 1997).

Ai, Zhike, 'Wanqing de Zhongxiyi Huitong jiqi Zouxiang' (The Thought of

Combining Traditional Chinese and Western Medicine in the Late Qing

Dynasty and Its Trends), *Historical Archives*, 2 (2010), 120-25.

Alberti, Samuel J. M. M., *Morbid Curiosities: Medical Museums in*

*Nineteenth-Century Britain* (Oxford: Oxford University Press, 2011)

—— War, Art and Surgery: The Work of Henry Tonks & Julia Midgley (London:

Royal College of Surgeons of England, 2014).

Andrews, Bridie, and Mary Brown Bullock, eds. *Medical Transitions in*

*Twentieth-Century China*, (Bloomington: Indiana University Press, 2014).

- Angle, Stephen C., and Justin Tiwald, *Neo-Confucianism: A Philosophical Introduction*, (Cambridge: Polity, 2017).
- Appadurai, Arjun, *The Social Life of Things* (Cambridge: Cambridge University Press, 1988).
- Appel, Toby A., 'Writing Women into Medical History in the 1930s: Kate Campbell Hurd-Mead and "Medical Women" of the Past and Present', *Bulletin of the History of Medicine*, 88 (2014), 457-92.
- Arnold, Ken and Danielle Olsen, 'Medicine Man: The Forgotten Museum of Henry Wellcome', *Medical History*, 47 (2003), 369-381.
- and Thomas Söderqvist, 'Medical Instruments in Museums: Immediate Impressions and Historical Meanings', *Isis*, 102 (2011), 718-29.
- Bailey, Paul J., *Women and Gender in Twentieth-Century China* (New York: Palgrave Macmillan, 2012).
- Banister, T Roger, *A History of the External Trade of China, 1834-81, Being an Introduction to the Customs Decennial Reports, 1882-1931* (London: Customs Statistical Department, 1931).
- Barlow, Tani E., *The Question of Women in Chinese Feminism* (Durham, NC: Duke University Press, 2004).

- Barr, Allan H., 'Reviewed of "*Herself an Author: Gender, Agency, and Writing in Late Imperial China* by Grace S. Fong"', *Nan Nü: Men Women, and Gender in China*, 12(2010), 157-60.
- Bennison, Elisabeth, *Antique Medical Instruments* (London: Sotheby Parke Bernet, 1980).
- Bhattacharya, Sanjoy, and Niels Brimnes, 'Introduction: Simultaneously Global and Local: Reassessing Smallpox Vaccination and Its Spread, 1780-1900', *Bulletin of the History of Medicine*, 83 (2009), 1-16.
- Bickers, Robert, Christian Henriot, *New Frontiers: Imperialism's New Communities in East Asia, 1842-1953*, (Manchester: Manchester University Press, 2000), 125-32.
- — *Scramble for China: Foreign Devils in the Qing Empire, 1832-1914*, (London: Penguin, 2011).
- Birge, Bettine, 'Women and Confucianism from Song to Ming: The Institutionalization of Patrilineality', *The Song-Yuan-Ming Transition in Chinese History* edited by Paul Jakov Smith Richard von Glahn (London: Harvard University Asia Center, 2003), 212-40.
- Blake, C. Fred, 'Foot-Binding in Neo-Confucian China and the Appropriation of Female Labor', *Signs*, vol. 19, No. 3, 1994, 676-712.

- Borst, Charlotte G., *Catching Babies: The Professionalization of Childbirth, 1870-1920* (Cambridge, MA: Harvard University Press, 1995).
- Bowler, Peter J., *Science for All: The Popularization of Science in Early Twentieth-Century Britain* (Chicago: University of Chicago Press, 2009).
- Bray, Francesca, 'Constructing Intimacy: Technology, Family and Gender in East Asia, East Asian Science', *Technology and Society: an International Journal*, vol. 2, No. 2, 2008, 151-65.
- *Technology, Gender and History in Imperial China: Great Transformations Reconsidered (Asia's Transformations/ Critical Asian Scholarship)* (London: Routledge, 2013).
- *Technology and Gender: Fabrics of Power in Late Imperial China* (Berkeley: University of California Press, 1997).
- 'Review of Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China', *Eighteenth-Century Studies*, 1 (2012), 155-157.
- Brewer, John, and Porter, Roy, eds, *Consumption and the World of Goods* (London: Routledge, 1993).
- Bu, Liping, 'From Public Health to State Medicine: John B. Grant and China's Health Profession', *Harvard Asia Quarterly*, 14.4 (2012), 8-15.

- Bullock, Mary Brown, *An American Transplant: the Rockefeller Foundation and Peking Union Medical College* (Berkeley: University of California Press, 1980).
- Bullough, Vern L., 'A Brief Note on Rubber Technology and Contraception: The Diaphragm and the Condom', *Technology and Culture* 22, 1 (1981), 104-11.
- Burke, Timothy, 'Bodies and Things: Toiletries and Commodity Culture in Postwar Zimbabwe' in Miller, Daniel, ed., *Consumption: Critical Conception in the Social Sciences, vol. 2, The History and Regional Development of Consumption* (London: Routledge, 2001), 13-5.
- Cao, Zhengwen and Zhang Guoying, *Jiu Shanghai Baokan Shihua* (旧上海报刊史话 History of Press in the Old Shanghai) (Shanghai: East China Normal University Press, 1991).
- Chan, Wellington K.K., 'Personal Styles, Cultural Values, and Management: The Sincere and Wing On Companies in Shanghai and Hong Kong 1900-1941' in Kerrie L. MacPherson, ed., *Asian Department Stores* (Richmond: Curzon, 1998), 66-7.
- Chen, Dongyuan, *Zhongguo Funü Shenghuoshi*, (中国妇女生活史 The Life History of Chinese Women), (Beijing: The Commercial Press, 1998), 413-14.

Chen, Lizheng, and Yuan, Enzhen, eds, *Xinya de Lichen – Shanghai Xinya Zhiyaochang de Guoqu Xianzai he Jianglai* (上海新亚制药厂的过去现在和将来 New Asia Step by Step – Shanghai New Asia Pharmaceutical Company in the past, present, and future) (Shanghai: Shanghai Shehui Kexue Yuan Chubanshe, 1990).

Chen, Mingguang, *Zhongguo Weisheng Fagui Shiliao Xuanbian (1912-1949)*, (中国卫生法规史料选编 Selected Compilation of Historical Materials on Chinese Health Laws and Regulation 1912-1949) , (Shanghai: Shanghai Medical University Press, 1996).

Chen, Shigong, *Waike Zhengzong* (外科正宗 Orthodox Manual of External Diseases) (Beijing: People's Medical Publishing House, 1956).

Chen, Shu, 'Wanqing Shanghai de Yiyao Wenhua yu Shehui Shenghuo - Yi Shenbao Guanggao wei Zhongxin de Yanjiu (1901-1910)' (晚清上海的医药文化与社会生活-以申报广告为中心的研究 Medical Culture and Social Life in Shanghai in the Late Qing Dynasty), Master degree thesis of Qingdao University, 2013.

Chen, Xinqian, and Zhang Tianlu, *Zhongguo Jindai Yaoxue Shi* (中国近代药学史 A History of Modern Medicine in China) (Beijing: Renmin Weisheng Chubanshe, 1992).



Chen, Zhiming, *Füren Daquan liangfang* ( 妇女大全良方 Comprehensive Compendium of Good Formulas for Women) (Shanghai: Shanghai Guji Chubanshe, 1991).

Cheng, Hu, 'The modernization of Japanese and Chinese Medicine (1914-1931)', *Chinese Studies in History*,(47) 2014, 78-94.

Chin, Sei Jeong , 'The History Origins of the Nationalization of the Newspaper Industry in Modern China: A Case Study of the Shanghai Newspaper Industry, 1937-1953', *The China Review*, Vol.13, 2 (2013), 1-34.

Chinese Medical Association, 'Liuxue Riben Yiyao Xuexiao Tongren Xingming Diaochalu' (Survey of the Names of Students Studying in Japanese Medical Schools), *Yiyaoxuebao* (Chinese Journal of Medicine), 6 (1907), 1-4.

Choa, Gerald H., *'Heal the Sick' Was Their Motto: the Protestant Medical Missionaries in China* (Hong Kong: Chinese University Press, 1990).

Chu, Corida Ming-Yeuk, 'Menstrual Beliefs and Practices of Chinese Women', *Journal of the Folklore Institution*, 17 (1980), 38-55.

Cochran, Sherman, *Chinese Medicine Men: Consumer Culture in China and Southeast Asia* (Cambridge, MA: Harvard University Press, 2006)

- ‘Marketing Medicine and Advertising Dreams in China, 1900-1950’ in Yeh, ed., *Becoming Chinese: Passages to Modernity and Beyond, 1900-1950* (Berkeley: University of California Press, 2000), pp. 62-97
- ed., *Inverting Nanjing Road: Commercial Culture in Shanghai, 1900-1945* (Ithaca, N.Y.: Cornell East Asia Series, 1999)
- Cooter, Roger, and John Pickstone, eds, *Companion to Medicine in the Twentieth Century* (London: Routledge, 2002).
- David, Mirela, ‘Female Gynecologists and Their Birth Control Clinics: Eugenics in Practice in 1920s-1930s China’, *Canadian Bulletin of Medical History*, 1 (2018), 32-62.
- Deng, Tietao, and Cheng, Zhifan, ed., *Zhongguo Yixue Tongshi- Jindaijuan* (Chinese Medical History), (Beijing: Renmin Weisheng Chubanshe, 2000).
- Fan Zhifan, ed., *A General History of Chinese Medicine* (Modern Volume), (Beijing: Renmin Chubanshe, 2000).
- Deng, Zhicheng, *Wang Huiweng (Shiduo) Yibing Diary* (汪悔翁(士铎)乙丙日记), edited by Shen Yunlong, *Jindai Zhongguo Shiliao Congkan vol. 13*, (Taibei: Wenhai Chubanshe, 1968).
- Desar, A. R., ed., *Essays on Modernization of Underdeveloped Societies*, (New York: Humanities Press, 1972).

- Diamond, Norma, 'Women under Kuomintang Rule: Variations of Feminine Mystique', *Modern China*, 1.1 (1975), 1-45.
- Dikötter, Frank, 'A Cultural History of the Syringe', *Twentieth-Century China*, (28) 2002, 37-56.
- 'Objects and agency: Material Culture and Modernity in China', in Harvey, Karen, ed., *History and Material Culture* (London: Routledge, 2009), 158-72.
- *Things Modern: Material Culture and Everyday Life in China* (London: C Hurst & Co., 2007).
- Lars Laamann, Zhou Xun, *Narcotic Culture: A History of Drugs in China* (Chicago: University of Chicago Press, 2004).
- 'Race Culture: Recent Perspectives on the History of Eugenics', *American Historical Review*, vol. 103, no. 2 (1998), 467-78.
- *Sex, Culture, and Modernity in China: Medical Science and the Construction of Sexual Identities in the Early Republican Period* (London: Hurst, 1995).
- Dong, Madeleine Yue, and Goldstein, Joshua, *Everyday Modernity in China* (Seattle: University of Washington Press, 2006).
- Dowbiggin, Ian, *The Sterilization Movement and Global Fertility in the Twentieth Century*, (New York: Oxford University Press, 2008).

- Edgerton, David, *The Shock of the Old: Technology and Global History since 1900* (London: Profile Books, 2007).
- Edmonson, James M., *American Surgical Instruments: The History of Their Manufacture and a Directory of Instrument Makers to 1900* (San Francisco: Norman, 1997).
- Edwards, Louise, 'Policing the Modern Woman in Republican China,' *Modern China*, 26.2 (2000), 115-147.
- Elman, Benjamin, *A Cultural History of Modern Science in China* (Cambridge MA: Harvard University Press, 2006).
- Fan, Guiyu, *Zhonghua Shengyu Wenhua Daolun* (中华生育文化导论 An Introduction to Chinese Birth Culture), (Beijing: Zhongguo Renkou Chubanshe, 2001).
- Fang, Hanqi, *Zhongguo Xinwen Shiye Tongshi* (A History of Journalism in China), vol. 2, (Beijing: Zhongguo Renmin Daxue Chubanshe, 1996).
- Farrell-Beck, Jane, and Kidd, Laura Klosterman, 'The Roles of Health Professionals in the Development and Dissemination of Women's Sanitary Products, 1880-1940', *Journal of the History of Medicine and Allied Sciences*, 51(1996), 325-52.
- Feng, Weicai, *Ruhe Shuxie Zhongguo Nüxing Shenti--Cong Chanzu Kaishi*, (如何书写中国女性身体史——从缠足开始 How to Write the History of

Chinese Women's body - Starting from footbinding), *21st Century Bimonthly*, 97 (2006), 121-7.

Feng, Xiaocai, 'Counterfeiting Legitimacy: Reflections on the Usurpation of Popular Politics and the "Political Culture" of China, 1912-1949', *Frontiers of History in China*, 8 (2013), 202-222.

Fewsmith, Joseph, *Party, State, and Local Elite in Republican China: Merchant Organisations and Politics in Shanghai, 1890-1930* (Honolulu: University of Hawaii Press, 1985).

Fong, Grace S., *Herself an Author: Gender, Agency, and Writing in Late Imperial China* (Honolulu: University of Hawai'i Press, 2008).

Forster, Elisabeth, 'From Academic Nitpicking to a "New Culture Movement": How Newspapers Turned Academic Debates into the Center of "May Fourth"', *Frontiers of History in China*, Volume 9, 4 (2014), 534-557.

Freidenfelds, Lara, *The Modern Period: Menstruation in Twentieth-century America* (Baltimore, MD: John Hopkins University Press, 2009).

Furth, Charlotte, *A Flourishing Yin: Gender in China's Medical History, 960-1665* (Berkeley: University of California Press, 1999), 168-72.

— and Ch'en, Shu-yueh, 'Chinese Medicine and the anthropology of menstruation in Contemporary Taiwan', *Medical Anthropology Quarterly*, 6 (1992), 27-48.

- Gao, Xi, 'Weisheng zhidao yu Weisheng Zhengzhihua-- 20 Shiji Zhongguo Xiyi Tixi de Queli yu Yanbian(1900-1949)'(The Way of Hygiene and the Politicalisation of Hygiene: The Establishment and Evolution of China's Western Medicine System in the 20th Century), *Shilin*, 5(2014).
- Gerth, Karl, *China Made: Consumer Culture and the Creation of the Nation* (Cambridge, MA: Harvard University Asia Center, 2003).
- Qiang, Yonggang, 'X Shexian de Faxian yu Zaoqi Buzhengdang Yingyong-Jinian Lunqin Faxian X Shexian 120 Zhounian' (Discovery of X-rays and Its Unjustifiable Application in Its Early Years-Commemorating the 120 Anniversary of Discovery of X-rays by Rroentgen), *Zhonghua Fangshe Yixue yu Fanghu Zazhi*, 2(2016), pp. 154-60.
- Giorgi, Laura De, 'Communication Technology and Mass Propaganda in Republican China- The Nationalist Party's Radio Broadcasting Policy and Organisation during the Nanjing Decade (1927-1937)', *European Journal of East Asian Studies*, 13 (2014), 305-329.
- Goodman, Bryna, 'The Politics of Public Health: Sanitation in Shanghai in the Late Nineteenth Century', *Modern Asian Studies*, 4 (1989), 816-20.
- Graves-Brown, Paul M., 'Introduction' in Paul M. Graves-Brown, ed., *Matter, Materiality and Modern Culture* (London: Routledge, 2000)

- G. Robinson, Arthur, 'Pilgrims to Western Seats of Learning- China's First Educational Mission to the United States', *Chinese Studies in History*, vol. 36, 4(2003), 63-87.
- Guo, Licheng, *Zhongguo Shengyu Lisu Kao* (中国生育礼俗考 Research on Chinese Childbirth Etiquette), (Taipei: Wenshizhe chubanshe, 1971).
- Guo, Qingquan, *Shiyong Biyun Fa* (实用避孕法 Practical Methods of Contraception), (Shanghai: Home Magazine, 1947).
- Guo, Wei, 'Zhongguo yu Guolian zai Weisheng Fangmian de Hezuo yu Hudong (1920-1939)' (Cooperation and Interaction between China and the League of Nations in Health(1920-1939)), Master's Thesis of Fudan University, 2008.
- Hamilton, Gary G., 'Chinese Consumption of Foreign Commodities: A Comparative Perspective', *American Sociological Review*, 42 (1977), 877-91.
- and Chi-kong, Lai, 'Consumerism without Capitalism: Consumption and Brand Names in Late Imperial China' in Rutz, H.J., and B.S. Orlove, eds, *The Social Economy of Consumption* (Lanham, MD: University Press of America, 1989), 253-79.

- Hanson, Marta E., *Speaking of Epidemics in Chinese Medicine: Disease and the Geographic Imagination in Late Imperial China* (London: Routledge, 2011).
- Hao, Cheng, *Jiezhi Shengyu Wenti* (节制生育问题 Questions about Birth Control), (Shanghai: Shangwu Yinshuguan, 1924).
- Harden Garrick, and Chiung-fang Chang, 'Fashion and Freedom: A Textual Analysis of Chinese Women from 1911 to 2011' in *New Modern Chinese Women and Gender Politics: The Centennial of the End of the Qing Dynasty*, edited by Chen Ya-chen, (New York: Routledge, Taylor & Francis Group, 2014).
- Harrison, Mark, Margaret Jones, and Helen Sweet, eds, *From Western Medicine to Global Medicine: The Hospital Beyond the West* (New Delhi: Orient Blackswan, 2009).
- Harvey, Karen, ed., *History and Material Culture* (London: Routledge, 2009).
- Hershatter, Gail, *Women in China's Long Twentieth Century* (Berkeley: University of California Press, 2007).
- Himes, Norman E., *Medical History of Contraception*, (New York: Gamut Press, 1963).
- Hofmann, Klaus, 'Beyond the Principle of Population: Malthus's Essay', *Euro. J. History of Economic Thoughts*, vol. 20, no. 3 (2013), 399-425.



- Hollen, Cecilia Van, *Birth on the Threshold: Childbirth and Modernity in South India* (Berkeley and Los Angeles: University of California Press, 2003).
- Hunn, Lynn, *The New Cultural History* (Berkeley: University of California Press, 1984).
- Hsiung, Ping-chen, *Youyou: Chuantong Zhongguo de Qiangbao Zhidao* (幼幼——传统中国的襁褓之道 Infant——the Traditional Chinese Way of Swaddling), (Taipei: Lianjing Chubangongsi, 1995).
- Hsu, Pi-ching, 'Review of *A Flourishing Yin: Gender in China's Medical History: 960-1665* by Charlotte Furth', *Journal of the History of Sexuality*, vol. 9, 3 (2000), 362-5.
- Hu, Shi, 'Jieshao Woziji de Sixiang - *Hushi Wenxuan Zixu*' (介绍我自己的思想——《胡适文选》自序 An Introduction of My Thoughts), *Hushi Zuopin Ji* (胡适作品集 A Collection of Hushi's Work), vol. 18.
- Hu, Ying, *Tales of Translation: Composing the New Woman in China, 1898-1918*, (Stanford: Stanford University Press, 2000).
- Huang, Kewu, 'Cong *Shenbao* Yiyao Guanggao kan Minchu Shanghai de Yiliao Wenhua yu Shehui Shenghuo, 1912-1926' (从申报医药广告看民初上海的医疗文化与社会生活 Shanghai's Medical Culture and Social Life in the Early Republic of China from the Application of Medical

- Advertisements 1912-1926), *Zhongyang Yanjiuyuan Jindaishi Yanjiusuo Jikan*, (中央研究院近代史研究所集刊 *Journal of the Institute of Modern History, Academia Sinica Series 1*), 1, 17(1988).
- Hung, Yi-Cheng, 'Xinshenghuo Yundong yu Funü Zuzhi, 1934-1938', (New Life Movement and Organisation for Women 新生活运动与妇女组织 1934-1938), *Zhengda Shicui* (政大史粹), 13 (2007).
- Jackson, Isabella, *Shaping Modern Shanghai: Colonialism in China's Global City*, (Cambridge: Cambridge University Press, 2017).
- Jannetta, Ann, 'Jennerian Vaccination and the Creation of the National Public Health Agenda in Japan, 1850-1900', *Bulletin of the History of Medicine*, 83 (2009), 125-40.
- Jia, Xiaohui, *Dagongbao Xinlun -- 20 Shiji 30 Niandai Daogongbao yu Zhongguo Xiandaihua* (New Theory on Dagongbao-Dagongbao and China's Modernisation in the 1930s), (Tianjin: Tianjin Renmin Chubanshe, 2002).
- Jing, Wang 'The Empire of Hygiene- Hygienic Discourse in Modern Japan', *East Asian Forum*, (13) 2010, 52-69.
- Johnson, Tina Phillips, *Childbirth in Republican China: Delivering modernity*, (Lanham, MD: Lexington Books, 2011).

- ‘Yang Chongrui and the First National Midwifery School: Childbirth Reform in Early Twentieth-Century China’, *Asian Medicine* 4(2008), pp. 280-302.
- Judge, Joan, ‘Everydayness as a Critical Category of Gender Analysis: The Case of Funü shibao (The Women’s Eastern Times)’, *Jindai Zhongguo Funüshi Yanjiu*, 20 (2012), 1-28.
- ‘Foreign Knowledge of Bodies: Japanese Sources, Western Science, and China’s Republican Lady’, from part III - Gendered Space and Global Context: Foreign Models, Circulating Concepts, and the Constitution of Female Subjectivities, in *Women and the Periodical Press in China’s Long Twentieth Century*, edited by Michel Hockx, Joan Judge and Barbara Mittler, (Cambridge: Cambridge University Press, 2018), 255-81.
- *Republican Lens: Gender, Visuality, and Experience in the Early Chinese Periodically Press* (Berkeley: University of California Press, 2015).
- ‘Review of *Chinese Visions of Family and State, 1915-1953* by Susan L. Glosser’, *China Review International*: vol. 11, no. 1, (2004).
- ‘Sinology, Feminist History, and Everydayness in the Early Republican Periodical Press’, *Signs*, vol. 40, no. 3 (2015), 563-87.

- *Women and the Periodical Press in China's long twentieth century: A Space of Their Own*, edited by Michel Hocks, Joan Judge and Barbara Mittler, (Cambridge: Cambridge University Press, 2018).
- Katz, Esther, *The Selected Papers of Margaret Sanger, Volume 2 Birth Control Comes of Age 1928-1939*, (Urbana and Chicago: University of Illinois Press, 2007).
- Keen, Ian, 'The Language of Morality', *The Australian Journal of Anthropology*, 2015(26), 332-48.
- Keene, Melanie, 'Every Boy & Girl a Scientist: Instruments for Children in Interwar Britain', *Isis*, 98 (2007), 266-89.
- Kieschnick, John, *The Impact of Buddhism on Chinese Material Culture* (Princeton: Princeton University Press, 2003).
- King, Michelle T., 'Margaret Sanger in Translation: Gender, Class, and Birth Control in 1920s China', *Journal of Women's History*, 3 (2017), 61-83.
- Kirkup, John, *The Evolution of Surgical Instruments: An Illustrated History from Ancient Times to the Twentieth Century* (San Francisco: Norman, 2005).
- Klein, Thoralf, 'Media Events and Missionary Periodicals: The Case of the Boxer War, 1900-1901', *Church History*, 6(2013), 399-404.

- Ko, Dorothy, *Teachers of the Inner Chambers: Women and Culture in Seventeenth-Century China*, (Stanford: Stanford University Press, 1994).
- LaCouture, Elizabeth, 'Translating Domesticity in Chinese History and Historiography.' *American Historical Review* (4), 2019, 1278–89.
- Lai, Shu-ching, 'The 1912-3 Bureau of Merits of the Nanking Provisional Government and the Sending of Merits students Studying Abroad' (Minchu Jixunju yu Jixun Liuxuesheng de Paiqian), *Academia Historica*, 12(2009), 57-96.
- Laoshe, 'Beneath the Red Banner', see Shuji ed., *Laoshe Classic Novels*, vol. 4, (Beijing: Jiuzhou Press, 1995).
- Lawrence, Christopher, and Steven, Shapin, eds, *Science Incarnate: Historical Embodiments of Natural Knowledge* (Chicago: University of Chicago Press, 1998).
- Lee, Hsia Hsu Ting, *Government Control of the Press in Modern China, 1900-1949*, (Cambridge: Harvard University Press).
- Lee, Jen-Der, 'Childbirth in Early Imperial China', *Nan Nü*, vol. 7, (2) 2005, 216-7.
- Lee, Leo Ou-fan, 'The Cultural Construction of Modernity in Urban Shanghai: Some Preliminary Explorations' in Yeh Wen-hsin, ed., *Becoming Chinese:*

*Passages to Modernity and Beyond* (Berkeley: University of California Press, 2000), 31-61.

Lei, Sean Hsiang-lin, 'Habituating Individuality: The Framing of Tuberculosis and Its Material Solutions in Republican China', *Bulletin of the History of Medicine*, 84 (2010), 248-79

—— 'Xiguan Cheng Siwei: Xinchenghuo Yundong yu Feijiehe Fangzhi zhong de Lunli, Jiating yu Shenti' (习惯成思维: 新生活运动与肺结核防治中的伦理, 家庭与身体 Habits Become Thinking: New Life Movement and Ethics, Family and Body in Tuberculosis Prevention and Treatment), *Collection of Institute of Modern History*, 74 (2011), 133-177.

Leung, Angela Ki Che, *Leprosy in China: A History* (Columbia University, NK: Columbia University Press, 2009)

—— and Charlotte Furth, eds, *Health and Hygiene in Chinese East Asia: Policies and Publics in the Long Twentieth Century* (Durham, N.C.: Duke University Press, 2010).

—— 'Recent Trends in the Study of Medicine for Women in Imperial China', *Nan Nü: Men Women, and Gender in China*, 7(2005), 110-323.

—— 'Women Practicing Medicine in Premodern China', in Harriet T. Zurndorfer, ed., *Chinese Women in the Imperial Past: New Perspectives* (Leiden: Brill, 1999), 101-34.

- Leutner, Mechthild, and Nicola Spakowski, eds, *Women in China: the Republican Period in Historical Perspective* (Munster: Lit, 2005).
- Levy, Howard S., *Chinese Footbinding: The History of a Curious Erotic Custom*, (London: Spearman, 1970).
- Lidia H. Liu, 'Translingual Practice: Literature, National Culture' and Translated Modernity-China, 1900-1937', *Harvard Journal of Asiatic Studies*, Vol. 58, 2 (1998), 568-580.
- Li, Jie, *Shanghai Homes: Palimpsests of Private Life* (New York: Columbia University Press, 2015).
- Li, Yanchang, 'You Jishu er Guannian: Zhushe Zhishi yu Shijian zai Jindai Zhongguo de Chuanbo' (Concept from Technology: The Dissemination of Injection Knowledge and Practice in Modern China), *Jindaishi Yanjiu*, 3 (2017).
- Lin, Shing-ting, "'Scientific' Menstruation': the Popularisation and Commodification of Female Hygiene in Republican China, 1910s-1930', *Gender & History*, 25 (2013), 294-316.
- Ling, Xingzhen, 'Minguo Shiqi de Xuesheng Mianfei Gongfeizhi' (Free Public Expenditure System for Students in the Period of the Republic of China), *Sichuan Shifan Daxue Xuebao*, 6 (2004), 117-26.

- Litsios, Socrates, 'Selskar Gunn and China: The Rockefeller Foundation's "Other" Approach to Public Health', *Bulletin of the History of Medicine*, 79 (2005), 295-318.
- Liu, Juan, 'Cong *Dagongbao Yixuezhoukan* Kan Minguo Shiqi Xiandai Weisheng Guannian de Chuanbo', (从大公报医学周刊看民国时期现代卫生观念的传播 The Spread of Modern Hygiene Concepts in the Period of the Republic of China Viewed from the Medical Weekly of *Dagongbao*), *Journalism & Communication*, 5 (2014), 98-128.
- Liu, Naici, 'Xiandaixing: Wusi Nüxing Xiaoshuo Yanjiu' (现代性：五四女性小说研究 Modernity: A Study on May Fourth Novels), Master Thesis, Danjiang University, 2002.
- Liu, Renfeng, 'Minguo Chunian Diyifen Shangban *Funü Shibao* Shengcun de Bianji Celüe', (民国初年第一份商办妇女刊物《妇女时报》生存的编辑策略 The Survival Editing Strategies of the First Commercially - Run Women's Journal '*Funü Shibao*' in the Early Years of the Republic of China), *Bianji Zhiyou* (编辑之友), 4 (2013), 118-21.
- Liu, Michael Shi-Yung, *Wushidao yu Liuyedao: Riben Xiyang Yixue zhi Jienna yu Kaizhan*, (Katana and Lancet: Acceptance and Development of Western Medicine in Japan), (Taipei: National Taiwan University, 2012).



- Lin, Shing-ting, 'The Female Hand: The Making of Western Medicine for Women in China, 1880s–1920s', PhD thesis, Columbia University, 2015.
- Lu, Wenhao, *Wusi Qimeng Sixiang de Yanxu yu Fansi: Pan Guangdan Shehui Sixiang Yanjiu* (五四启蒙思想的延续与反思: 潘光旦社会思想研究 Continuation and Reflection of May Fourth Enlightenment Thought: A Study of Pan Guangdan's Social Thought, (Taipei: Xiuwei Information, 2012).
- Lu, Zhuang, *Shanghaishi Jiaoshi Keyu Shenghuo zhi Yanjiu* (A Study on Shanghai Teachers' Extracurricular Life), (Shanghai: Jiaoyu Bianyiguan, 1935).
- Ma, Dazheng, *Zhongguo Fuchanke Fazhanshi* (中国妇产科学发展史 History of Obstetrics and Gynecology in China), (Shanxi: Kexue Jiaoyu Chubanshe, 1991).
- MacKinnon, Stephen R., Toward a History of the Chinese Press in the Republican Period, *Modern China*, 23 (1997), 3-32.
- MacPherson, Kerrie L., *A Wilderness of Marshes: The Origins of Public Health in Shanghai, 1843-1893* (Hong Kong: Oxford University Press, 1987).
- Mai, Jincheng, 'Zhongguo Xuexiao Weisheng de Xianquzhe'(中国学校卫生的先驱者 The Pioneer of School Health in China: Dr. Li Yan'an), *Zhongguo*

*Xuexiao Jiankang Zazhi*(中国学校健康杂志 *Chinese Journal of School Health*), (4)2017, 483-4.

Mann, Susan, and Cheng, Yu-Yin ed., *Under Confucian Eyes: Writings on Gender in Chinese History*, (London: University of California Press, 2001).

—— *Gender and Sexuality in Modern Chinese History* (New York: Cambridge University Press, 2011).

—— *Precious Records: Women in China's Long Eighteenth Century* (Stanford: Stanford University Press, 1997).

McMahon, Keith, *Polygamy and Sublime Passion: Sexuality in China on the Verge of Modernity*, (Hawaii: University of Hawaii Press, 2010).

—— *Women Shall Not Rule: Imperial Wives and Concubines in China, Han to Liao*, (Lanham: Rowman and Littlefield, 2013).

Mei, Qionglin, and Qian Zeng, 'Xiandaixing Yishi de Goujian: 1930 Niandai de Shanghai Baoye' (Constructing the Sense of Modernity: Shanghai Press in the 1930s), *Journal of Oriental Studies*, 06 (2006), 123-66.

Mitter, Rana, *A Bitter Revolution: China's Struggle with the Modern World* (Oxford: Oxford University Press, 2004), 1-49 .

—— *A Newspaper for China?: Power, Identity, and Change in Shanghai's News Media, 1872–1912*, (London: Harvard University Asia Center, 2004).

- ‘Modernity, Internationalization, and War in the History of Modern China’, *The Historical Journal*, 48 (2005), 523-43.
- Nakajima, Chieko, ‘Health and Hygiene in Mass Mobilization: Hygiene Campaigns in Shanghai, 1920-1945’, *Twentieth-Century China*, 11. 2008.
- National Christian Council of China, *The Christian Occupation of China (1901 - 1920)* (Beijing: China Social Sciences Press, 1985).
- Ng, Janet, *The Experience of Modernity: Chinese Autobiography of the Early Mediations in Consumption* (London: Routledge, 2001).
- Ng, Peter Tze Ming, Yongguang Zhang, ‘Nationalism, Modernisation, and Christian Education in 20th Century East Asia: A Comparison of the Situations in China, Japan, and Korea’, in *Christian Presence and Progress in North-East Asia: Historical and Comparative Studies*, edited by Chong Ku Paek, Jiafeng Liu, Peter Tze Ming Ng, Jan A. B. Jongeneel, (Frankfurt am main: Peter Lang, 2011), 57-72.
- Niu, Yahua, ‘Qingmo Liuri Yixuesheng jiqi dui Zhongguo Jindai Yixue Shiye de Gongxian’ (Chinese Students Studying in the Medical College of Japan in the Late Qing Dynasty and Their Contribution to Modern Medicine of China), *Zhongguo Keji Shiliao* (China Historical Materials of Science and Technology), vol. 24, no. 3 (2003), 228-43.

- Nodostup, Rebecca, *Superstitious Regimes: Religion and the Politics of Chinese Modernity* (Cambridge, MA: Harvard University Asia Center, 2010).
- Pang, Juai, *Kuawenhua Guanggao yu Shimin Wenhua de Bianqian -- 1910-1930* (跨文化广告与市民文化的变迁——1910-1930年《申报》跨文化广告研究 Cross-cultural Advertising and the Changes of Citizens' Cultural - A Research on the Cross-cultural Advertising of *Shenbao* from 1910 to 1930), (Shanghai: Shanghai Jiaotong Daxue Chubanshe, 2011).
- Pickstone, John J. V., *Medicine and Industrial Society: A History of Hospital Development in Manchester and its Region 1752-1946* (Manchester: Manchester University Press, 1985).
- *Ways of Knowing: A New History of Science, Technology and Medicine* (Manchester: Manchester University Press, 2000).
- Porter, Roy, *The Greatest Benefit to Mankind: A Medical History of Humanity* (New York: Norton, 1998).
- 'The Patient's View: Doing Medical History From Below', *Theory and Society*, 14 (1985), 175-98.
- Qiao, Xinxin, Jindai Minzu Guojia Goujian Guocheng zhong de GongminShenfen Bianqian, (The Change of Citizenship in the Process of Constructing Modern Nation-States), *Guancha yu Sikao*, 12 (2019), 71-8.

- Qi, Hui, and Zhongjuan Li, Weiman Shiqi Riben dui Dongbei de Xinwen Jianguan yu Yulun Kongzhi- Yi Weiman Hongbaochu wei Zhongxin Taolun, (Journalism Supervision and Public Opinion Control by Japan in Northeast China in the Period of Puppet Manchuria), *Guoji Xinwenjie*, 7 (2013).
- Qin, Shaohua, Shanghaishi Huajie Zhongxiaoxue Xuexiao Weisheng Yanjiu, 1929-1937 (上海市华界中小学卫生研究 Research of the Health Construction in Primary Schools and Secondary Schools in Shanghai, 1929-1937, Master Degree Thesis, East China Normal University, 2007.
- Ransmeier, Johanna, 'Inside the Home, Outside the Family: Wet Nurses in Republican China', *Nannü*, 17(2015), 276-308.
- Risse Guenter B., 'Translating Western Modernity: The First Chinese Hospital in America', *Bulletin of the History of Medicine*, 85 (2011), 413-47.
- Rittersmith, Arielle Ann, 'Review of *Chinese medicine men: consumer culture in China and Southeast Asia* by Sherman Cochran', *China Journal*, 58 (2007), 177-79.
- Rocha, Leon Antonio, 'A Small Business of Sexual Enlightenment: Zhang Jingsheng's "Beauty Bookshop"', Shanghai 1927-1929', *British Journal of Chinese Studies*, (2) 2019, 1-30.

- ‘Xing: The Discourse of Sex and Human Nature in Modern China’,  
*Gender & History*, No. 3 (2010), 603-628.
- Rogaski, Ruth, *Hygienic Modernity: Meanings of Health and Disease in Treaty-Port China*, (Berkeley: University of California Press, 2004).
- Rosenberg, Charles E., and Janet, Golden, *Framing Disease: Studies in Cultural History* (New Brunswick, N.J.: Rutgers University Press, 1992).
- Rudolph, Henrike, ‘Xin nüxing yu Xiandai Yixue: Minguo Shanghai Zhuchanshi Peiyang de Deguo Yinsu’ (新女性与现代医学：民国上海助产士培养的德国因素 The Allure of ‘Germanness at Midwifery Schools in Republican Shanghai’, *Journal of the Social History of Medicine and Health*, vol. 6, 2 (2019),  
[https://www.thepaper.cn/newsDetail\\_forward\\_6379093](https://www.thepaper.cn/newsDetail_forward_6379093), accessed on 26. 03.2021.
- Santos, Gonçalo and Suzanne Z. Gottschang, ‘Rethinking Reproductive Technologies and Modernities in Time and Space’, *Technology and Culture*, 2 (2020), 549-58.
- Sanger, J. W., *Advertising Methods in Japan, China, and the Philippines* (Washington, DC: Government Printing Office, 1921).
- Scheid, Volker, *Current of Tradition in Chinese Medicine, 1626-2006* (Seattle: Eastland Press, 2007).

- Schlereth, Thomas, *Cultural History and Material Culture: Everyday Life, Landscapes, Museums* (Charlottesville, VA: University Press of Virginia, 1992).
- Schmid, Carol, 'The 'New Woman', Gender Roles and Urban Modernism in Interwar Berlin and Shanghai', *Journal of International Women's Studies* vol. 15, no. 1 January 2014, 1-16.
- Schuster, David G., 'Personalizing Illness and Modernity: S. Weir Mitchell, Literary Women, and Neurasthenia, 1870-1914', *Bulletin of the History of Medicine*, 79 (2005), 695-722.
- She, Fandao, *Shuyi yu Jindai Zhongguo- Weisheng de Zhiduhua he Shehui Bianqian* (The Plague and Modern China-- The Institutionalisation of Sanitation and Social Changes), translated by Puyan, Xinzhong Yu, Bin Jiang, (Beijing: Shehui Kexue Wenxian Chubanshe, 2019).
- Skinner, G. William, 'Marketing and social structure in rural China: Part I', *Journal of Asian Studies*, 24 (1964), 3-43.
- 'Marketing and social structure in rural China: Part II', *Journal of Asian Studies*, 24, (1965), 195-228.
- 'Marketing and social structure in rural China: Part III', *Journal of Asian Studies*, 24, (1965), 363-99.

- SIHN, Kyu-hwan, 'Eugenics Discourse and Racial Improvement in Republican China (1911-1949)', *Korean J Med Hist* 19, 12 (2010), 459-486.
- Smith, Franklin H., *China and Indu-China Markets for American Lumber* (Washington, DC: Government Printing Office, 1915).
- Stevens, Sarah E., 'Figuring Modernity: The New Woman and the Modern Girl in Republican China,' *NWSA Journal* 15. 3(2003), 82-103.
- Styles, John, *The Dress of the People: Everyday Fashion in Eighteenth-Century England* (New Haven: Yale University Press, 2007).
- Ping Su, *Yaoyan yu Jindai Jiaoran* (Rumours and Modern Missionary cases), (Shanghai: Shanghai Yuandong Chubanshe, 2001).
- Sugiyama, S., and Linda Grove, eds, *Commercial Networks in Modern Asia* (Richmond: Curzon, 2001), 171-81.
- Sun, Shiyue, *Zhongguo Jindai Nüzi Liuxueshi* (The History of Modern Chinese Women Studying Abroad), (Beijing: Zhongguo Heping Chubanshe, 1995).
- Sussman, George D., 'Was the Black Death in India and China?', *Bulletin of the History of Medicine*, 85 (2011), 319-55.
- Trambaiolo, Daniel, 'Vaccination and the Politics of Medical Knowledge in Nineteenth-Century Japan', *Bulletin of the History of Medicine*, 88 (2014), 431-56.



- Tsai, Weipin, *Reading Shenbao : nationalism, consumerism and individuality in China 1919-37*, (London: Palgrave Macmillan, 2010).
- Unschuld, Paul U., *Medicine in China: A History of Pharmaceuticals (Comparative Studies of Health Systems and Medical Care)* (Berkeley: University of California Press, 1986)
- Volz, Yong and Lei Guo, 'Making China Their "Beat": A Collective Biography of U.S. Correspondents in China, 1900-1949', *American Journalism Historians Association*, 4(2019), 473-96.
- Wagner, Rudolf G., 'The Role of the Foreign Community in the Chinese Public Sphere', *The China Quarterly*, 12 (1995), 423-43.
- Wang, Jianwei, 'Professional Journals and the Innovation of History in the 1920s and 1930s', *Journal of Historical Science*, 1 (2008), 116-24.
- Wang, Qisheng, *Liuxue yu jiuguo* (Studying Abroad and Saving the Nation), (Shanghai: Guangxi Normal University Press, 1995).
- Wang, Yaohua, 'Wanqing Minguo Shiqi Shenti Jiancha Zhidu yu Shijian Yanjiu (1902-1949) (On the System and Practice of Physical Examination in the Late Qing Dynasty and the Republic of China)', PhD thesis of University of Science and Technology Beijing, 2020.
- Wang, Yichu, *Chinese Intellectuals and the West, 1872-1949*, (Chapel Hill: University of North Carolina Press, 1966).

- Wang, Yong, 'Zhongguo Xiandai Zhuchan Jiaoyu de Dianji: Yangchongrui yu Beiping Guoli Diyi Zhuchan Xuexiao' (中国现代助产教育的奠基:杨崇瑞与北平国立第一助产学校 The foundation of modern midwifery education in China: Yang Chongrui and Peking National First Midwifery School), *Tianjin Journal of Nursing*, 6 (2014), 484-7.
- Wang, Ke-wen, 'Collaborators and Capitalists: The Politics of "Material Control" in Wartime Shanghai', *Chinese Studies in History*, 26 (1992), 42-62.
- Wang, Ying, Shanghai Guangbo yu Shehui Shenghuo Hudong Jizhi Yanjiu (1927-1937) (上海广播与社会生活互动机制研究 A Study on the Interaction between Broadcast and Social Life in Shanghai), PhD thesis in 2007 of Huadong Shifan University.
- Wang, Yingpei, 'Tuanjie yu Gaizao: Cong Jiuchanpo Dao' (团结与改造: 从旧产婆到社会主义接生员——以上海为例的讨论 Unity and Transformation: From the Old Midwife to the Socialist Midwife: A Discussion with Shanghai), *Collection of Women's Studies*, 4 (2017), 88-99.
- Wei, Shanling, 'Structural Analyses of Students Studying Abroad in the Early Republic (1912-1927)', *Journal of South China Agricultural University*, 11(2012), 141-50.

- Weisenfeld, Gennifer, 'Publicity and Propaganda in 1930s Japan: Modernism as Method', *Design Issues*, vol. 25, no. 4 (2009), 13-28.
- Wilson, Adrian, *The Making of Man-Midwifery: Childbirth in England, 1660-1770* (Cambridge, MA: Harvard University Press, 1995).
- Wright, David, Review of *A Cultural History of Modern Science in China* by Benjamin Elman, *Bulletin of the School of Oriental and African Studies, University of London*, 2 (2007), 443-45.
- Wu, Xiufeng, (ed.), *Zhongguo yu Guolian Jishu Hezuo zhi Jingguo yu Jiben Yuanze* (The Process of Technical Cooperation between China and the League of Nations), (Nanjing: The Second Historical Archives of China, 2003).
- Wu, Yi-li, *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China* (Berkeley: University of California Press, 2010).
- 'Ghost Fetuses, False Pregnancies, and the Parameters of Medical Uncertainty in Classical Chinese Gynecology,' *Nan Nü: Men, Women and Gender in Early and Imperial China*, 4.2(2002), pp. 170-206.
- Xiao, Yanxiong, Peng Lingyan, 'The figure of Shanghai's population is found by Xiao Yanxiong and Peng Lingyan', (三十年代对女性美的消费——以《申报》美容、化妆品广告为中心 On Woman Beauty Consumption in 1930: Advertising of Cosmetics and Beauty Products on *Shenbao*),

- Hunan Shifan Daxue Xuebao* (湖南师范大学学报 Journal of Hunan Normal University), 132-140.
- Xu, Guanqun, 'Xinya Yaochang Sanshinian Laide Huigu' (Reflections on My Thirty Years at New Asia Pharmaceuticals), 1964. The original copy of this unpublished manuscript is in the office of the New Asia Pharmaceutical Company, Shanghai.
- Xi, Wanfu, 'Guomin Zhengfu Shiqi de Xiyijie Neibu de Paoxi Jiuge' (Factional Entanglements within the Western Medicine Circle during the Nationalist Government), *Lantai Shijie*, 1 (2014), 81-2.
- Xu, Ke, *Qingbai Leichao* (清稗类钞 Qing Barnyard Banknotes), (Beijing: Zhonghua Book Company, 1984), 4170-71.
- Yang, Xiangyin, and Xu, Jianwei, 'Fanglao Jiu Guo: Zhongguo Fanglao Xiehui de Chengli ji Zaoqi Huodong (1933 - 1937)' (防痨救国: 中国防痨协会的成立及早期活动 Prevent Tuberculosis and Save the Country: the Early Period of the Anti-Tuberculosis Association), *Jiangnan Luntan* (健康论坛), 9 (2014), 52-64.
- Huan Wei, *Zhonghua Yixuehui yu Minguo Shiqi Xiyi Zhiyehua* (The Chinese Medical Association and the Professionalisation of Western Doctors in the Period of the Republic of China), *Shehui Kexue Jikan* (Social Science Journal), 5 (2014), 155-61.

- Xu, Xiaoqun, 'Collective Action and State Sanction: Chinese Native Physicians' Fight for Legitimacy, 1912-1937', Unpublished manuscript, 1995. The original copy of this unpublished manuscript is in the office of the New Asia Pharmaceutical Company, Shanghai.
- Yamasaki, Yoko, 'The Impact of Western Progressive Educational Ideas in Japan: 1868-1940', *History of Education*, 9 (2010), 575-88;
- Yang, Nianqun, *Zaizao Bingren-Zhongxiyi Chongtuxia de Kongjian Zhengzhi (1832-1985)* (Remaking 'Patients': Space Politics under the Conflict Between Chinese and Western Medicine), (Beijing: Zhongguo Renmin Daxue Chubanshe, 2013).
- Yeh, Wen-hsin, 'Shanghai Modernity: Commerce and Culture in a Republican City', *China Quarterly*, 150 (1997), 375-94
- — *Shanghai Splendor: Economic Sentiments and the Making of Modern China, 1843-1949* (Berkeley: University of California Press, 2007).
- Yip, Ka-che, *Health and National Reconstruction in Nationalist China: the Development of Modern Health Service, 1928-1937* (Ann Arbor: Association for Asia Studies, 1995).
- Yin, Qian, *Minguo Shiqi de Yishi Qunti Yanjiu (1912-1937)* (民国时期的医师群体研究 Study on Medical Practitioners in the Period of the Republic of China (1912-1937)) (Beijing: China Social Sciences Press, 2013).

- Yu, Lianshi, 'Minguo Shiqi Chengshi Shengyu Jiezhi Yundong de Yanjiu', (民国时期城市生育节制运动的研究:以北京、上海、南京为中心 Research on the Urban Fertility Control Movement during the Republic of China: Centered on Beijing, Shanghai and Nanjing), Doctoral Dissertation of Chinese Modern Contemporary History, Department of History, Fudan University, 2008.
- Yu, Tianhuang, 'Xiandai Yijia Yingyou zhi Zhishi: Jingmai Zhushe Fa' (Knowledge that Modern Physicians should have: Intravenous Injection Method), *Weisheng Bao*, 09.02.1929, pp. 8-9.
- Yung, Sik Kim, and Francesca Bray, eds, *Current Perspectives in the History of Science in East Asia* (Seoul: Seoul National University Press, 1999).
- Zhan, Mei, *Other-worldly: Making Chinese Medicine through Transnational Frames* (Durham, N.C.: Duke University Press, 2009).
- Zhang, Jing, 'Kangzhan Qian Beiping Diyi Weishengqu Shiwusuo de Xuexiao Weisheng Gongzuo' (抗战前北平第一卫生区事务所的学校卫生工作 School Health Work in Peking First Health District Office Before the War), *Zhongguo Shehui Kexueyuan Jindaishi Yanjiusuo Qingnian Xueshu Luntan* (中国社会科学院近代史研究所青年学术论坛 Youth Academic BBS, Institute of Modern History, Chinese Academy of Social Sciences), (Beijing: Sociological Literature Press, 2013).

Zhang, Shaoqian, 'Shaping the New Woman: The Dilemma of Shen in China's Republican Period', *Dao*, 17 (2018), 401-20.

Zhang, Yanhua, *Transforming Emotions with Chinese Medicine: An Ethnographic Account from Contemporary China* (Albany: State University of New York Press, 2007).

Zhang, Yufa, 'Returned Chinese Students from America and the Chinese Leadership(1846-1949)', *Chinese Studies in History*, vol. 35,3(2002), 52-86.

Zhang, Zhibin, *Gudai Zhongyi Fuchanke Jibingshi* (古代中医妇产科疾病史 History of Obstetrics and Gynecology Diseases in Ancient Chinese Medicine), (Beijing: Zhongyi Guji Chubanshe, 2000).

Zhang, Zhongmin, 'Jindai Shanghai de Mingren Yiyao Guanggao - Yi Wenren Yuyao wei Zhongxin', (近代上海的名人医药广告-以文人与药为中心) *Academic Monthly*, 7 (2015), 153-162.

Zhang, Zhongmin, 'Jindai Shanghai de Mingren Yiyao Guanggao - Yi Wenren Yuyao wei Zhongxin', (近代上海的名人医药广告 Celebrity Medical Advertisements in Modern Shanghai), *Academic Monthly*, 7 (2015), 153-162.

- Zhao, Jing, *Jindai Shanghai de Fenmiao Weisheng (1927-1949)* (近代上海的分娩卫生研究 Study on childbirth hygiene in modern Shanghai (1927-1949)), (Shanghai: Shanghai Lexicographical Publishing House, 2015).
- Zhao, Xianming, and Mei, Qiu, 'Erzhan Shiqi Meiguo Yuanhua Zujie Wuzi Weiyongyu Kangri Wuzi Wenti Yanjiu' (二战时期美国援华租借物资未用于抗日物资问题研究 On US-aided Goods and Materials Not Applied to Anti-Japanese During World War II), *Journal of Xichang College Social Science Edition*, vol. 17, 1 (2005), 96-8.
- Zhao, Xiurong, 'An Introduction to the Studies in Medical History of the UK and the USA', *Journal of Historical Science*, 6 (2007), 117-125.
- Zhao, Zhongwei, 'Towards a Better Understanding of Past Fertility Regimes: The Ideas and Practices of Controlling Family Size in Chinese History', *Continuity and Change*, 1 (2006), 9-35.
- Zhejiang Sheng Gejie Fuyong Guohuo Hui, ed., *Guohuo Diaocha Lu* (Record of an Investigation into National goods) (Taipei: Taiwan Xuesheng Shuju, 1976).
- Zhen, Chen, and others, eds, *Zhongguo Jindai Gongye Shi Ziliao* (Documents on the history of modern industry in China), 2 vols (Beijing: Sanlian shudian, 1958).



Zhou, Chunyan, 'Nüti yu Guozu: Qiangguo Qiangzhong yu Jindai Zhongguo de Funü Weisheng' (1895-1949) (女体与国族: 强国强种与近代中国的妇女卫生 (1895-1949) Women's Hygiene in Modern China (1895-1949)), PhD Thesis, National Chengchi University, Taiwan, 2008.

Zhou, Wei, 'Qianyi Gengkuan Liumeisheng de Yingxiang - Yi Kangnaierdaxue Liuxuesheng Weili' (A Brief Discussion on the Influence of the Students Studying in the U.S. with the Boxer Indemnity-Take Cornell University as an example), *Changchun Gongye Daxue Xuebao* (Journal of Changchun University of Technology), 6 (2011), 101-3.

Zhou, Yanping, 'Minguo Shiqi Shanghaishi Fuyou Weisheng Dangan Jianjie', (民国时期上海市妇幼卫生档案简介 A Brief Introduction to Shanghai Maternal and Child Health Archives in the Republic of China), [http://www.archives.sh.cn/dazn/ztn/201203/t20120313\\_5590.html](http://www.archives.sh.cn/dazn/ztn/201203/t20120313_5590.html), accessed on 26.03.2021.

Zhou, Yichuan, and Zhou, Yichuan, 'Jindai Zhongguo Liuri Xuesheng Renshu Kaobian' (A Textual Research on the Number of Chinese Students Studying in Japan in Modern China), *Journal of Literature, history and philosophy*, 2(2008), 104-12.

- *Jindai Zhongguo Nüxing Riben Liuxueshi (1872-1945)* (近代中国女性日本留学史 (1872-1945) The History of Modern Chinese Women Studying in Japan (1872-1945)), (Beijing: Social Sciences Academic Press, 2007).
- Zhu, Jieren, *Zhuzi Quanshu, Zhuxi Baike*, (朱熹百科 Zhuxi's Encyclopedia), Shanghai: Shanghai Chinese Classics Publishing House, 2002).
- Zhu Mingde and Chen Pei eds, *Renji Yiyuan 155 nian* (仁济医院 155 年 A 155-year History of Renji Hospital) (Shanghai: Huadong Ligong Daxue Chubanshe, 1999).
- Zhu, Xinquan and Yan, Ruping, eds, *Minguo Renwu Zhuan* (Biographies of figures from the Republican period), vol. 4 (Beijing: Zhonghua Shuju, 1984), 261-67.
- Zhu, Yahua, 'Qingmo Liuri Yixuesheng Jiqi dui Zhongguo Jindai Yixue Shiye de Gongxian' (The Special Contributions of the Returned Students in Japan in the Late Qing Dynasty to the Cause of Modern Chinese Medicine), *China Historical Materials of Science and Technology*, vol. 24, no. 3 (2003), 228-43.
- Zhu, Youxian, *Zhongguo Jindai Xuezhì Shiliao* (中国近代学制史料 Chinese Modern School System Historical Materials), (Shanghai: East China Normal University Press, 1989).

Zuo, Xuchu, *Lao Shangbiao* (老上海商标 Old trade marks) (Shanghai:  
Shanghai Huabao Chubanshe, 1999).