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THE UNIVERSITY OF DUBLIN

TRINITY COLLEGE

ORGANISATIONAL CLIMATE, BIOGRAPHICAL FACTORS, AND JOB SATISFACTION: A NATIONAL SURVEY OF NURSES IN THE REPUBLIC OF IRELAND

(Volume 1)

A DISSERTATION SUBMITTED TO
THE FACULTY OF ARTS (HUMANITIES)
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

SCHOOL OF EDUCATION

BY

ELIZABETH ANN CURTIS

DUBLIN

SEPTEMBER 2005

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TABLE OF CONTENTS

VOLUME ONE

		Page
ACKNOWLEDGEMENTS		i
LIST OF ILLUSTRATIONS		xiii
LIST OF TABLES		xiv
ABSTRACT		xviii
CHAPTER ONE	**INTRODUCTION**	**1**
1.1	Background and Justification for the Study	1
1.2	Significance of the Present Study	8
1.3	Statement of the Research Problem	10
1.4	Purpose of Study	12
1.5	Hypotheses	13
1.6	Operational Definitions of Variables	17
1.6.1	Biographic Factors	18
1.6.2	Organisational Climate	19
1.6.3	Job Satisfaction	21
1.7	Research Assumptions	23
1.7.1	Theoretically based Assumptions	24
1.7.2	Empirically based Assumptions	24
1.7.3	Research based Assumptions	25
1.8	Delimitations	25
1.9	Structure of the Dissertation	26
1.10	Summary of Chapter	32
CHAPTER TWO	**REVIEW OF THE RELATED LITERATURE**	**33**
2.1	Introduction	33
2.2	Scholarly Literature about the Independent Variables	41
2.3	Biographic Factors	41
2.3.1	Education	42
2.3.2	Gender	45
2.3.3	Age	47
2.3.4	Personality Factors	50
2.4	Summary of Literature about Demographic and Personal Factors	51

2.5 Organisational Climate 52
2.6 Historical Overview of Organisational Climate 53
2.7 Conceptual Considerations 56
2.8 Measures of Organisational Climate 58
2.8.1 Perceptual Measures of Organisational Climate 59
2.9 Organisational Climate as an Independent Variable 61
2.10 Criticisms of the Climate Construct 63
2.11 Summary of the Literature on Organisational Climate 67
2.12 Literature about the Dependent Variable 68
2.13 Conceptual Considerations 68
2.14 Historical Overview of Job Satisfaction 70
2.15 The Assessment of Job Satisfaction 72
2.16 Job Satisfaction as an Outcome of a Specific Job 74
2.16.1 Specific Types of Nursing Jobs 75
2.16.2 Autonomy 77
2.16.3 Pay 82
2.17 Job Satisfaction as an Outcome of Organisational Factors 85
2.17.1 Delivery of Nursing Care 86
2.17.2 Supervision and Management Style 89
2.17.3 Organisational Structure 93
2.17.4 Turnover 96
2.18 Summary of the Literature on Job Satisfaction as an Outcome of Organisational Factors 99
2.19 Literature that Relates the Independent Variable to the Dependent Variable 100
2.20 Summary of Literature that Relates the Independent Variable to the Dependent Variable 109
2.21 Deficiencies Identified in the Literature 110
2.21.1 Deficiencies Regarding the Effects of Biographical Factors on Job Satisfaction 110
2.21.2 Deficiencies Regarding the Relationship Between Organisational Climate and Job Satisfaction 111
2.22 Summary and Conclusion 113

CHAPTER THREE A THEORETICAL PERSPECTIVE 118

3.1 Introduction 118
3.2 Importance of Theory in Research 119
3.3 Theories of Job Satisfaction 120
3.3.1 Expectancy Theories 122
3.3.2 Two-Factor Theory 124
3.4 Organisational Theories 127

3.4.1 Theories of Individual Behaviour 128
3.4.2 Theories of Organisational Behaviour 129

3.5 A Tentative Framework 131

3.5.1 Constructing the Framework: Use of a Visual Model 132
3.5.2 Constructing the Framework: Expanding the Visual Model 135

3.6 Summary and Conclusion 140

CHAPTER FOUR METHODOLOGY 142

4.1 Introduction 142

4.1.1 Purpose of Study 148
4.1.2 Hypotheses 149

4.2 The Quantitative Versus Qualitative Debate 151
4.3 The Emergence of Mixed Methods 153
4.4 Limitations of Using Mixed Methods 155
4.5 Research Design 156

4.5.1 Rationale for Selecting a Dominant-Less Dominant Mixed Method Design 160
4.5.2 Rationale for Using a Quantitative Approach as the Dominant Paradigm 160
4.5.3 The Research Cycle 162

4.6 Population and Sample 163

4.6.1 Selecting the Sample for the Focus Group Interview 164
4.6.2 Selecting the Sample for the Questionnaire Survey 165
4.6.3 Inclusion Criteria for the Sample 168
4.6.4 Exclusion Criteria for the Sample 169
4.6.5 Sample Size 169
4.6.6 Contacting the Samples 173

4.7 Data Collection Procedures 174

4.7.1 Advantages and Limitations of Interviewing 176
4.7.2 Advantages and Limitations of Questionnaires 177

4.8 Measurement Instruments 180

4.8.1 Rationale for Selecting Instruments 182
4.8.2 Permission to Use Instruments 183
4.8.3 Description of Instruments 183
4.8.4 Comparison of Reliability Analysis for the IWS 185
4.8.5 Comparison of Reliability Analysis of the NOCDQ 190
4.8.6 Validity of Instruments 192

4.9 Preparation of Data for Analysis 194

4.9.1 Data from the Focus Group Interview 194
4.9.2 Data from the Questionnaire Survey 194

4.10 Pilot Study 196

4.10.1 Outcome of Pilot Study 197

4.11 Data Analysis Procedures 198

4.11.1 Data Analysis Procedures for the Focus Group Interview 201
4.11.2 Data Analysis Procedures for the Questionnaire Survey 202
4.11.3 Assumptions Underlying the Use of Parametric Tests 207
4.11.4 Decision Theory and Level of Significance 209

4.12 Data Presentation 210

4.12.1 Presentation of Data from the Focus Group Interview 210
4.12.2 Presentation of Data from the Questionnaire Survey 211

4.13 Ethical Considerations 211

4.13.1 Need for an Ethical Framework 213
4.13.2 Justification for a Principle-based Framework 214

4.14 Report on the Conduct and Outcome of the Focus Group Interview 220

4.14.1 Introduction 220
4.14.2 The Process of Conducting Focus Group Interviews 222
4.14.3 Findings from the Focus Group Interview 229
4.14.4 Report from the Independent Observer 234
4.14.5 Limitations of Focus Group Interviews 236
4.14.6 Evaluation of the Focus Group Interview 236
4.14.7 Summary of the Main Findings from the Focus Group Interview 238

4.15 Summary and Conclusion 240

TABLE OF CONTENTS

VOLUME TWO

			Page
LIST OF ILLUSTRATIONS			xiii
LIST OF TABLES			xiv
CHAPTER FIVE DESCRIPTIVE FINDINGS			**243**
5.1 Introduction			243
5.2 Univariate or Descriptive Statistics			244
5.3 Descriptive Findings from Section A of the Questionnaire Booklet			247
5.3.1	Question One	Gender	247
5.3.2	Question Two	Age Range	249
5.3.3	Question Three	Private or Public Sector	250
5.3.4	Question Four	Health Board Area	252
5.3.5	Question Five	Nursing Education	254
5.3.6	Question Six	Country in which Training Undertaken	255
5.3.7	Question Seven	Registration Details	257
5.3.8	Question Eight	Employment	258
5.3.9	Question Nine	Current Position	260
5.3.10	Question Ten	Length of Time in Current Place of Employment	262
5.4 Summary of Main Descriptive Findings from Section A of the Questionnaire Booklet			264
5.5 Descriptive Findings from Section B of the Questionnaire Booklet			266
5.5.1	Humanistic Thrust		268
5.5.2	Esprit		272
5.5.3	Intimacy		275
5.5.4	Aloofness		278
5.5.5	Disengagement		281
5.5.6	Hindrance		284
5.6 Interpreting the Component Scores for the NOCDQ			287
5.7 Summary of Main Descriptive Findings from Section B of the Questionnaire Booklet			290
5.8 Descriptive Findings from Section C of the Questionnaire Booklet			292

5.9 Frequency Distribution for the Paired Comparisons (Part A IWS) 293

5.9.1 Frequency Distribution for the First Pair of Components 294
5.9.2 Frequency Distribution for the Second Pair of Components 295
5.9.3 Frequency Distribution for the Third Pair of Components 296
5.9.4 Frequency Distribution for the Fourth Pair of Components 297
5.9.5 Frequency Distribution for the Fifth Pair of Components 298
5.9.6 Frequency Distribution for the Sixth Pair of Components 299
5.9.7 Frequency Distribution for the Seventh Pair of Components 300
5.9.8 Frequency Distribution for the Eight Pair of Components 301
5.9.9 Frequency Distribution for the Ninth Pair of Components 302
5.9.10 Frequency Distribution for the Tenth Pair of Components 303
5.9.11 Frequency Distribution for the Eleventh Pair of Components 304
5.9.12 Frequency Distribution for the Twelfth Pair of Components 305
5.9.13 Frequency Distribution for the Thirteenth Pair of Components 306
5.9.14 Frequency Distribution for the Fourteenth Pair of Components 307
5.9.15 Frequency Distribution for the Fifteenth Pair of Components 308

5.10 Scoring Part A of IWS (Paired Comparisons) 309

5.10.1 Stage 1: Constructing a Frequency Matrix 310
5.10.2 Stage 2: Constructing a Proportion Matrix 311
5.10.3 Stage 3: Creating a Z-matrix 313
5.10.4 Stage 4: Obtaining the Component Weighting Coefficient 315

5.11 Scoring Part B of IWS (Attitude Scale) 316

5.11.1 Stage 1: Determine Range of Component Scores 317
5.11.2 Stage 2: Computing Component Scores 318
5.11.3 Stage 3: Calculating a Total Scale Score for the IWS 321
5.11.4 Stage 4: Calculating the Index of Work Satisfaction 322

5.12 Interpreting the Scores for the IWS Questionnaire 323

5.12.1 Category 1: Numerical Scores Representing the Total Concept of Satisfaction 323
5.12.2 Category 2: Numerical Scores Representing Components of Satisfaction 326

5.13 Purpose of Study 327
5.14 Rankings of Paired Comparisons (Part A of IWS) 328
5.15 Rankings of Current Level of Satisfaction (Part B of IWS) 329
5.16 Purpose of Study 330
5.17 Rankings of Components Based on Both Importance and Current Level of Satisfaction 331
5.18 Comparison of Dissonance Between Rankings of Paired Comparisons and Rankings of Level of Satisfaction 333
5.19 Purpose of Study 334
5.20 Comparative Analysis 335
5.21 Summary of Main Findings from Section C of the Questionnaire 337
5.22 Summary and Conclusion 339

CHAPTER SIX DATA ANALYSIS 345

6.1 Introduction 345
6.2 Statistical Procedures used to Analyse Data 346
6.3 Results for the First Null Hypothesis 350

6.3.1 Independent-samples t-test 351
6.3.2 Calculating the Effect Size 352

6.4 Results for the Second Null Hypothesis 354

6.4.1 Test of Homogeneity of Variances 355
6.4.2 Analysis of Variance (ANOVA) 355
6.4.3 Multiple Comparisons (Post-hoc tests) 356
6.4.4 Calculating the Effect Size 356

6.5 Results for the Third Null Hypothesis 359

6.5.1 Independent-samples t-test 360
6.5.2 Calculating the Effect Size 361

6.6 Results for the Fourth Null Hypothesis 363

6.6.1 Test of Homogeneity of Variances 364
6.6.2 Analysis of Variance (ANOVA) 365
6.6.3 Multiple Comparisons (Post-hoc tests) 366
6.6.4 Calculating the Effect Size 366

6.7 Results for the Fifth Null Hypothesis 369

6.7.1 Independent Samples t-test 370
6.7.2 Calculating the Effect Size 371

6.8 Results from Sixth Null Hypothesis 373

6.8.1 Test of Homogeneity of Variances 374
6.8.2 Analysis of Variance (ANOVA) 375
6.8.3 Multiple Comparisons (Post-hoc tests) 376
6.8.4 Calculating the Effect Size 376

6.9 Results from Seventh Null Hypothesis 379

6.9.1 Independent Samples t-test 380
6.9.2 Calculating the Effect Size 381

6.10 Additional Analysis: Two-way Between-groups Analysis of Variance (ANOVA) and One-way Between-groups Multivariate Analysis of Variance (MANOVA) 383

6.11 Results from Eighth Null Hypothesis 389

6.11.1 Correlations Among the Six NOCDQ Components 389
6.11.2 Correlations Between Organisational Climate Components and Job Satisfaction Components 394
6.11.3 Calculating the Coefficient of Determination 396

6.12 Results from Ninth Null Hypothesis 400

6.12.1 Correlations Between Organisational Climate Components and Job Satisfaction 401

6.13 Multiple Regression Analyses 403
6.14 Summary and Conclusion 406

CHAPTER SEVEN DISCUSSION 415

7.1 Introduction 415
7.2 Key Design Issues 416
7.3 Respondent Profile 416
7.4 Main Descriptive Findings 417
7.5 Results from the Bivariate Analysis 428

7.5.1 Null Hypothesis 1 428
7.5.2 Null Hypothesis 2 429
7.5.3 Null Hypothesis 3 431
7.5.4 Null Hypothesis 4 432
7.5.5 Null Hypothesis 5 434
7.5.6 Null Hypothesis 6 436
7.5.7 Null Hypothesis 7 437
7.5.8 Null Hypothesis 8 441
7.5.9 Null Hypothesis 9 442

7.6 Results from the Multiple Regression Analysis 448
7.7 Summary and Conclusion 449

CHAPTER EIGHT CONFIRMATION OF THE FRAMEWORK 455

8.1 Introduction 455
8.2 Background to the Construction of the Framework 456
8.3 The Original or Tentative Framework 458
8.4 The Modified Framework: How Useful and Relevant was the Framework? 463

8.4.1 Linking the Framework to the Larger Body of Knowledge 465

8.5 Implications of the Framework 468
8.6 Summary and Conclusion 470

CHAPTER NINE SUMMARY AND CONCLUSIONS 472

9.1 Introduction 472
9.2 Summary of Dissertation 473
9.3 Summary of Main Findings 475

9.3.1 Purposes of the Present Study 475
9.3.2 Hypotheses Formulated and Tested 477

9.4 Has the Present Study Contributed to Research on Job Satisfaction? 479

9.5 Implications of Findings 484

9.5.1 Implications for Theory 484
9.5.2 Implications for Research 486
9.5.3 Implications for Education 488
9.5.4 Implications for Practice 490

9.6 Limitations of the Present Study 493

9.6.1 Theoretical Limitations 493
9.6.2 Methodological Limitations 494

9.7 Summary and Conclusion 496

SELECTED BIBLIOGRAPHY **498**

APPENDICES

Appendix 1 **Focus Group Interview Pack**

Appendix 1 A: Key Issues in Planning the Focus Group Interview
Appendix 1 B: Focus Group Interview Schedule
Appendix 1 C: Check List for Evaluating the Focus Group Interview
Appendix 1 D: Consent Form
Appendix 1 E: Ethical Protocol Used to Guide this Research Study
Appendix 1 F: Copy of Letter to Participants of Focus Group Interview

Appendix 2 **Copies of Letters to Authors Seeking Permission to Use Questionnaires**

Appendix 2 A: Copy of Letter to Professor P. Stamps Seeking Permission to Use the IWS
Appendix 2 B: Copy of Letter to Professor Mitzi Duxbury Seeking Permission to use NOCDQ

Appendix 3 **Postal Survey Pack**

Appendix 3 A: Copy of Questionnaire Booklet
Appendix 3 B: Information about the Research Study
Appendix 3 C: Copy of Letter to Respondents
Appendix 3 D: Copy of Letter to *An Bord Altranais* Requesting Selection of Random Sample
Appendix 3 E: Ethical Protocol Used to Guide Research Study

Appendix 4 **Table of Z Values**

Appendix 5 **Positively and Negatively Worded Items from the Index of Work Satisfaction (IWS) and the Nurse Organisational Climate Description Questionnaire (NOCDQ)**
Appendix 5 A: List of Positively Worded Items from the IWS
Appendix 5 B: List of Negatively Worded Items from the IWS
Appendix 5 C: List of Positively Worded Items from the NOCDQ
Appendix 5 D: List of Negatively Worded Items from the NOCDQ

Appendix 6 **Tables Containing Scores for Each of the Six Components of the IWS**

Appendix 6 A: Component Score for Professional Status
Appendix 6 B: Component Score for Autonomy
Appendix 6 C: Component Score for Organisational Policies
Appendix 6 D: Component Score for Task Requirements
Appendix 6 E_1: Component Score for Nurse-Nurse Interaction
Appendix 6 E_2: Component Score for Nurse-Physician Interaction

Appendix 7 **Tables Containing Frequency Distributions for Each of the Six Components of Part B of the IWS**

Appendix 7 A: Frequency Distribution Analysis for Pay
Appendix 7 B: Frequency Distribution Analysis for Autonomy
Appendix 7 C: Frequency Distribution Analysis for Task Requirements
Appendix 7 D: Frequency Distribution Analysis for Organisational Policies
Appendix 7 E: Frequency Distribution Analysis for Professional Status
Appendix 7 F_1: Frequency Distribution Analysis for Nurse-Nurse Interaction
Appendix 7 F_2: Frequency Distribution Analysis for Nurse-Physician Interaction

LIST OF ILLUSTRATIONS

	Page
Figure 1: Map of the Related Literature	40
Figure 2: Visual Model of Relationships Between Independent and Dependent Variables	134
Figure 3: Framework Part One: Predicted Outcomes Between the Independent and Dependent Variables	138
Figure 4: Framework Part Two: Conceptual Map Showing Similarities Between Two-factor Theory and IWS Components	139
Figure 5: Map of Research Methodology	146
Figure 6: Research Design Used in the Present Study	159
Figure 7: The Research Cycle	163
Figure 8: The Analysis Continuum	201
Figure 9: Gender Distribution of Sample	247
Figure 10: Number of Nurses Working in Private or Public Sectors	250
Figure 11: Distribution of Nurses Working in the Health Boards	252
Figure 12: Length of Time Working in Current Place of Employment	262
Figure 13: Framework Part One: Predicted Outcomes Between the Independent and Dependent Variables	461
Figure 14: Framework – Part Two: Conceptual Map Showing Similarities Between Two-factor Theory and IWS Components	462
Figure 15: Modified Framework Part One: Framework Demonstrating Outcomes Between the Independent and Dependent Variables	467
Figure 16: Summary of Main Outcomes of the Present Study	483

LIST OF TABLES

	Page
Table 1: Calculating the Stratified Random Sample	168
Table 2: Time Schedule for Contacting Respondents	174
Table 3: Advantages of Interviewing	176
Table 4: Stages of Data Collection	180
Table 5: Reliability Analysis for the IWS	186
Table 6: The Eight Scales of the OCDQ developed by Halpin & Croft	188
Table 7: The Six Scales of the NOCDQ developed by Duxbury *et al.*	189
Table 8: Reliability Analysis for the NOCDQ	191
Table 9: Ethical Framework	216
Table 10: Summary of Findings from the Focus Group Interview	231
Table 11: Biographical Data from the Focus Group Interview	234
Table 12: Selecting the Appropriate Statistic	245
Table 13: Age Range of Sample	249
Table 14: Nursing Qualifications of Respondents	254
Table 15: Country in which RGN and RM Training Undertaken	255
Table 16: Registration Details of Sample	257
Table 17: Frequencies of Current Place of Employment	258
Table 18: Frequencies of Current Position at Work	260
Table 19: Components and Questionnaire Items for the NOCDQ	267
Table 20: Frequency Distribution of Responses for Humanistic Thrust	268
Table 21: Calculating the Component Score for Humanistic Thrust	271
Table 22: Frequency Distribution of Responses for Esprit	272
Table 23: Calculating the Component Score for Esprit	274
Table 24: Frequency Distribution of Responses for Intimacy	275
Table 25: Calculating the Component Score for Intimacy	277
Table 26: Frequency Distribution of Responses for Aloofness	278
Table 27: Calculating the Component Score for Aloofness	280

Table 28: Frequency Distribution of Responses for Disengagement 281

Table 29: Calculating the Component Score for Disengagement 283

Table 30: Frequency Distribution of Responses for Hindrance 284

Table 31: Calculating the Component Score Hindrance 286

Table 32: Component Scale Scores and Component Mean Scores (NOCDQ) 289

Table 33: Frequencies for First Pair of Components 294

Table 34: Frequencies for Second Pair of Components 295

Table 35: Frequencies for Third Pair of Components 296

Table 36: Frequencies for Fourth Pair of Components 297

Table 37: Frequencies for Fifth Pair of Components 298

Table 38: Frequencies for Sixth Pair of Components 299

Table 39: Frequencies for Seventh Pair of Components 300

Table 40: Frequencies for Eighth Pair of Components 301

Table 41: Frequencies for Ninth Pair of Components 302

Table 42: Frequencies for Tenth Pair of Components 303

Table 43: Frequencies for Eleventh Pair of Components 304

Table 44: Frequencies for Twelfth Pair of Components 305

Table 45: Frequencies for Thirteenth Pair of Components 306

Table 46: Frequencies for Fourteenth Pair of Components 307

Table 47: Frequencies for Fifteenth Pair of Components 308

Table 48: Frequency Matrix for the Paired Comparisons 310

Table 49: Proportion Matrix for the Paired Components 312

Table 50: Matrix of Z-Values for the Paired Comparisons 314

Table 51: Matrix of Z-Values Showing the Component Weighting Coefficient 315

Table 52: Example of How to Score Part B of IWS 316

Table 53: Item Numbers for Each of the Six Components (IWS) 318

Table 54: Calculating the Component Score for Pay 320

Table 55: Total Scale Score Values from Part B of IWS Questionnaire 321

Table 56: Numerical Values for the IWS Questionnaire 323

Table 57: Quartiles for Interpreting Data Obtained from the IWS Questionnaire 325

Table 58: Level of Importance of IWS Components 328

Table 59: Current Level of Satisfaction with IWS Components 329

Table 60: Level of Importance and Current Level of Satisfaction with IWS Components 331

Table 61: Comparison Between Rankings of Paired Comparisons And Rankings of Current Level of Job Satisfaction 333

Table 62: IWS Scores for the Present Study and Other International Studies 335

Table 63: Descriptive Statistics – Gender 350

Table 64: Independent-samples t-test – Gender 351

Table 65: Descriptive Statistics – Age Group 354

Table 66: Test of Homogeneity of Variance – Age group 355

Table 67: Analysis of Variance – Age Group 355

Table 68: Descriptive Statistics – Healthcare Sector 359

Table 69: Independent-samples t-test – Healthcare Sector 360

Table 70: Descriptive Statistics – Nursing Qualifications 364

Table 71: Test of Homogeneity of Variance – Nursing Qualifications 364

Table 72: Analysis of Variance – Nursing Qualifications 365

Table 73: Descriptive Statistics – Place of Employment 370

Table 74: Independent-samples t-test – Place of Employment 370

Table 75: Descriptive Statistics – Current Position 374

Table 76: Test of Homogeneity of Variance – Current Position 374

Table 77: Analysis of Variance – Current Position 375

Table 78: Descriptive Statistics – Tenure 380

Table 79: Independent-samples t-test – Tenure 380

Table 80: Correlation Matrix of NOCDQ Components 391

Table 81: Correlation Matrix of Organisational Climate and Job Satisfaction Components 394

Table 82: Coefficient of Determination Matrix 396

Table 83: Correlation Matrix of Organisational Climate and Total Job Satisfaction 400

Page

Table 84: Multiple Regression Analysis – Model Summary 403

Table 85: Contribution Made by Each of the Six Components of Organisational Climate 404

ABSTRACT

Background and Justification for the Study: This study grew out of a longstanding interest in job satisfaction and its relationship with organisational climate. Several research studies have demonstrated the importance of employee job satisfaction. There is, however, a general consensus in the literature on nursing that job satisfaction among nurses is relatively low. The effects of biographical factors, such as age and gender, on job satisfaction have been examined in previous studies but the results were mixed. In addition, the literature has stressed that organisational climate factors play an important role in job satisfaction. In view of the fact that (a) nurses have reported low levels of job satisfaction, (b) that reported correlations between biographical factors and job satisfaction are mixed, and (c) that very few nursing research studies have examined the relationship between organisational climate and job satisfaction among nurses, it seemed both appropriate and timely to undertake a study to examine these issues. Furthermore, no Irish studies have investigated the effects of biographical factors on job satisfaction and on the relationship between organisational climate factors and job satisfaction among nurses.

Purpose of Study: The present study had several purposes. Firstly, it sought to determine the current level of job satisfaction among nurses in the Republic of Ireland and to complete a comparative analysis of these findings with other international studies. Secondly, it hoped to identify which factors made the greatest contribution to nurses' current level of job satisfaction. Thirdly, it sought to establish the difference between those factors that nurses regard as *important* to their job satisfaction and those factors that *actually contribute* to their current level of job satisfaction. Fourthly, the present study sought to determine nurses' perceptions of their organisational climate. Fifthly, it hoped to establish the nature of the relationship between organisational climate factors and job satisfaction and to determine the effects of biographical factors on job satisfaction. Sixthly, the findings from the present study would be used to confirm the usefulness of the theoretical framework developed to guide the study.

Methodology: Essentially this study used a dominant-less dominant mixed method design to fulfil several purposes and test nine null hypotheses. Two null hypotheses were accepted while the others were rejected. The dominant design utilised a quantitative approach while a focus group interview was used to collect data for the less-dominant component. Using a national random sample of nurses 2000 questionnaires were distributed by *An Bord Altranais* (Irish Nursing Board) on behalf of this researcher. The response rate was 30.5%. Job satisfaction was measured as a dependent variable while the independent variables were biographical factors and organisational climate.

Main Findings: The descriptive findings confirmed low to moderate levels of job satisfaction among nurses. In addition, the findings demonstrated that factors such as Professional Status, Interaction, and Autonomy made the greatest contribution to nurses' current level of job satisfaction. With regard to perceptions of organisational climate, the findings indicated only moderate ratings. The findings from the bivariate analysis found no differences in job satisfaction for female and male nurses and between job satisfaction and tenure. The findings did however confirm that age does play a role in job satisfaction, that nurses working in the private healthcare sector are more likely to enjoy greater job satisfaction than those working in the public healthcare sector, that job satisfaction is lower in nurses with higher level qualifications and higher among nurses with lower level qualifications, and that nurses in senior positions are more satisfied than nurses in junior positions. Correlational analysis confirmed significant correlations between organisational climate components and job satisfaction. Specifically, there were significant positive correlations between *esprit* and job satisfaction and between *humanistic thrust* and job satisfaction while significant negative correlations were found between *disengagement*, *aloofness*, *hindrance* and job satisfaction. Multiple regression analysis revealed that organisational climate factors accounted for 46.7 % of the variance in job satisfaction. This result is quite reasonable and is statistically significant at the $p<.0005$ level.

DEDICATION

To my parents Sheila and John Persaud.
Your prayers, encouragement, high regard for education
and above all your unfailing belief in me
were my key motivators throughout this research study.

CHAPTER ONE

INTRODUCTION

1.1 Background and Justification for the Study

This research study grew out of a longstanding interest in job satisfaction and its relationship with organisational climate. In addition, several interesting discussions over a period of about five years between nursing students and myself concerning the need for research on this topic in Ireland finally convinced me that such research was important and would be of considerable interest to nurses and the nursing profession. Before beginning the research project, however, two important questions needed clarifying. Firstly, is job satisfaction worthy of investigation? Secondly, given the vast amount of research on this topic, what aspect of job satisfaction should be investigated?

An initial review of the literature provided answers to both questions. In relation to the first question, the literature would seem to indicate that because job satisfaction affects the lives of millions of workers it is indeed a valid area to research. With regard to the second question, the literature suggests that one way in which to improve our understanding of job satisfaction is to focus research efforts toward helping to improve employee satisfaction. In other words, researchers should never loose sight of the fact that their research should address issues that are relevant and important to those who participate in their studies.[1] Thus, it would seem appropriate

[1] P.M. Muchinsky, Psychology Applied to Work: An Introduction to Industrial and Organisational Psychology (Pacific Grove, California: Brooks/Cole Publishing Company, 1993), p. 289-321.

to undertake a study that seeks to determine (a) the current level of job satisfaction among nurses and (b) to identify the factors that contribute most to job satisfaction.

In 2001 Aiken *et al.*[2] undertook a study of more than 43,000 nurses from 700 hospitals in five countries in Europe and North America. Nurses' job satisfaction and levels of burnout were particularly important to these researchers in view of the current shortage of nurses. At the conclusion of their study Aiken wrote:

> Consumers, health professionals, and hospital leaders concur that all is not well in hospitals. Consumers' trust in hospitals is eroding, nurses feel that they are under siege, and hospitals cannot find enough nurses willing to work under current conditions in in-patient settings. This is not a uniquely American problem, and it suggests a fundamental flaw in the design of clinical care services and the management of the hospital workforce.[3]

Such remarks, although harsh, are probably warranted when one considers that despite coming from different health care systems the sample of nurses in the above study reported similar shortcomings in their work environments.[4] Furthermore, Aiken suggests that issues regarding work design and workforce management, which in their view are amenable to managerial intervention, must be resolved in order to preserve patient safety and a high standard of care. Such findings support the view that employee attitudes and behaviour are influenced not only by personal ability and disposition but also by the organisation within which they work.[5] Therefore, it is important that when investigating job satisfaction organisational factors be considered too. While I believe that it is important and necessary for the present study to

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[2] L.H. Aiken, S.P Clarke, D.M. Sloane, J.A. Sochalski, R. Busse, H. Clarke, P. Giovannetti, J. Hunt, A.M. Rafferty, and J.Shamian, "Nurses Reports on Hospital Care in Five Countries," Health Affairs 20: 3 (2001): p. 43-53.

[3] Ibid., p. 50-51.

[4] Ibid., p. 43.

[5] P.M. Muchinsky, Psychology Applied to Work, p. 258.

determine the level of job satisfaction among nurses in the Republic of Ireland and to identify those factors that make a significant contribution to job satisfaction, it is even more important that the nature of the relationship between organisational climate and job satisfaction be investigated.

There is no doubt that job satisfaction is, in general, a well researched topic. In the six and a half decades since the publication of Robert Hoppock's[6] Job Satisfaction in 1935 there has been a huge growth of material on the topic, with hundreds of books, journal articles, and television programmes addressing this topic. Authors such as Gruneberg[7] suggest that the reason for this huge interest in job satisfaction is not difficult to explain. Most people spend a large portion of their lives at work; therefore, understanding the factors that contribute to job satisfaction, is relevant to improving the overall well being of workers. Another reason suggested by Gruneberg, for investigating job satisfaction lies in the assumption that if job satisfaction increases, so too will productivity.

In the literature on nursing, research interest in nurses' job satisfaction is growing.[8] Several authors have reported that research on nurses' job satisfaction is of interest to health care managers and social scientists because it is directly related to variables such as absenteeism and turnover, which can result in reduced productivity and quality in health care services.[9,10,11,12] Other studies have shown that job satisfaction

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[6] R. Hoppock, Job Satisfaction (New York: Harper, 1935).

[7] M.M. Gruneberg, Understanding Job Satisfaction (London: The Macmillan Press Ltd., 1979), p. 1.

[8] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement 2nd ed., (Chicago, Illinois: Health Administration Press, 1997), p. 33.

[9] J. McCloskey, "Influence of Rewards and Incentives on Staff Nurse Turnover Rate," Nursing Research 23 (1974): p. 238-247.

is positively related to nurses' physical and mental well-being[13,14,15,16] and employee productivity.[17]

Despite this plethora of relevant material on job satisfaction, it would appear that dissatisfaction with work has reached critical levels throughout society and that the nursing profession is no exception.[18,19] In fact it would appear that job dissatisfaction is much higher among nurses compared to other groups of workers. In a study that included five countries, Aiken *et al.*[20] found that with the exception of Germany, a high proportion of registered nurses were dissatisfied with their jobs. More than 40% of nurses working in hospitals in the U.S.A. were dissatisfied with their jobs. Compared with other groups of workers in U.S.A. job dissatisfaction is much higher among nurses. For example, only 10% of professional workers and 15% of workers

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[10] M.A. Wandelt, R.M. Pierce, and R.R. Widdowson, "Why Nurses Leave Nursing and What Can be Done About it?" American Journal of Nursing 81 (1981): p. 72-77.

[11] G.A. Wolf, "Nurses' Turnover: Some Causes and Solutions," Nursing Outlook 29 (1981): p. 233-236.

[12] P.H. Prestholdt, I.M. Lane and R.C. Mathews, "Predicting Staff Nurse Turnover," Nursing Outlook 36 (1988): p. 145-150.

[13] P. Matrunola, "Is There a Relationship Between Job Satisfaction and Absenteeism?" Journal of Advanced Nursing 23 (1996): p. 827-834.

[14] A. Molassiotis and M. Haberman, "Evaluation of Burnout and Job Satisfaction in Bone Marrow Transplant Nurses," Cancer Nursing 19 (1996): p. 360-367.

[15] J.D. Cangelosi Jr., F.S. Markham and W.T. Bounds, "Factors Related to Nurse Retention and Turnover: An Updated Study," Health Marketing Quarterly 15 (1998): p. 25-43.

[16] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," Nursing Research 42 (1993): p. 36-41.

[17] P.W. Koebel, S.G. Fuller and T.R. Misener, "An Exploratory Model of Nurse Practitioner Job Satisfaction," Journal of the American Academy of Nurse Practitioner 3: 1 (1991): p. 17-24.

[18] C. Williams, "Job Satisfaction: Comparing Coronary Care and Medical/Surgical Nurses," Nursing Management 21: 7 (1990): p. 104A-104H.

[19] P.L.Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 178.

[20] Aiken, *et al.* "Nurses' Reports on Hospital Care in Five Countries," p. 43-53.

in general reported job dissatisfaction.[21] Research shows that nurses are three to four times more likely to be dissatisfied with their jobs by comparison with the average worker in the United States of America.

What does the research literature tell us about job satisfaction of nurses? It would appear that research, investigating job satisfaction among nurses, is trying to understand the factors that are associated with nurses being satisfied with their jobs. Briefly, job satisfaction is conceptualised in one of three ways in the literature. Firstly, some studies conceptualise job satisfaction as an independent variable. These studies are related to nurses themselves, focusing on personal characteristics of nurses, personality types and demographic factors. For the most part these studies have shown small or inconsistent effects of variables such as education, gender, age and personality on job satisfaction. In view of this, the present study will examine the relationship between biographical factors and job satisfaction.

Secondly, some of the studies have conceptualised job satisfaction as an outcome of a specific job. The studies in this category measure job satisfaction as a dependent variable. Job satisfaction is treated as an outcome of a specific type of job that nurses do, or the specific type of work of a unit ward or department within a hospital. Most of these studies were undertaken in the 1980s and were primarily descriptive in nature. Such studies evaluated some type of innovation that would result in changes to the job rather than the organisation itself. Nonetheless, these studies have contributed to a better understanding of specific aspects of nursing.

[21] Ibid., p. 46.

Thirdly, another group of studies measure job satisfaction as an outcome of organisational factors. These studies also measure job satisfaction as a dependent variable. They are however, different from the second group of studies in that they conceptualise job satisfaction not as an outcome of a specific job, but rather as an outcome of the organisation (both its structure and its climate). Many of these studies were undertaken in the 1980s and occurred in single hospital settings. The 1990s saw a change in this trend as some studies began to use samples that involved multiple hospital settings.

From this discussion, it becomes clear that the nursing profession has recognised the importance of job satisfaction among nurses. Also documented in the literature is the association between organisational climate and job satisfaction in a variety of work settings,[22] including health care.[23] Despite this, however, few studies within the nursing profession have examined the relationship between organisational climate and job satisfaction, using a national survey of randomly selected nurses. Thus, it seems justifiable to undertake the present research study.

To strengthen further the justification for this research study, it was important to address the issue of Research Priorities in nursing. According to Lynn and Layman[24] research in nursing administration can be categorized as "sporadic and largely unfocused". In the United States of America several attempts to determine research priorities for nursing administration have been made but unfortunately they have been

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[22] P.T. Silver, J.E. Poulin and R.C. Manning, "Surviving the Bureaucracy: The Predictors of Job Satisfaction for the Public Agency Supervisor," Clinical Supervisor 15: 1 (1997): p. 1-20.

[23] H. Biggs, R. Flett, K. Voges and F. Alpass, "Job Satisfaction and Distress in Rehabilitation Professionals: The Role of Organisational Commitment and Conflict," Journal of Applied Rehabilitation Counselling 26: 1 (1995): p. 41-46.

[24] M.R. Lynn and E.L. Layman, "Research Priorities: The Nature of Nursing Administration Research: Knowledge Building or Fire Stomping," Journal of Nursing Administration 26: 5 (1996): p. 9-14.

ignored by the various disciplines within nursing. As a result, no research programmes have been developed to address specific research priorities. In an attempt to address this issue further research was undertaken between 1996 and 1997. The results of this study were published in 1998 and reported a total of 44 high priority nursing administration research priorities.[25] Two of these high priority areas included "impact of organisational changes on organisational outcomes" and "impact of organisational changes on staff outcomes". Such priorities become meaningful when considered in the context of what has already been discussed with regard to the importance of organisational factors in examining job satisfaction.

A review of documents such as *The Nursing and Midwifery Resource*,[26] *Making Knowledge Work for Health*,[27] and *Research Strategy for Nursing and Midwifery in Ireland*, [28] made no reference to research priorities for nursing administration in this country. Indeed, no research priorities have been developed for nursing or midwifery. In preparing the document titled *Management in the Health Services – The Role of the Nurse* Flynn[29] reported that her literature search found only four Irish studies that were relevant to nurse management or administration issues. These included topics such as change management, stress in nursing, and absenteeism. A review of the literature in preparation for this dissertation revealed no research studies in this

[25] M.R. Lynn, E.L. Layman and S.P. Englebardt, "Nursing Administration Research Priorities: A National Delphi Study," Journal of Nursing Administration 28: 5 (1998): p. 7-11.

[26] Nursing Policy Division, Department of Health and Children, The Nursing and Midwifery Resource: Interim Report of the Steering Group (Dublin: Department of Health and Children, 2000).

[27] The Health Research Board, Making Knowledge Work for Health: Towards a Strategy for Research and Innovation for Health A Consultation Document (Dublin: The Health Research Board, 2000).

[28] Department of Health and Children, A Strategy for Nursing and Midwifery in Ireland: Final Report (Dublin: The Stationery Office, 2003).

[29] M. Flynn, Management in the Health Services – The Role of the Nurse Report Prepared for the Commission on Nursing (Dublin: The Stationery Office, 1998), p. 129-132.

country relating to organisational climate and job satisfaction. This lack of published research on nursing management issues in Ireland may be attributed to the lack of a "centralised database" of nursing management research in the Republic of Ireland[30] as well as the unavailability of a list of research priorities for nursing administration. Thus, the present study was partly guided by the research priorities identified for nursing administration in the United States of America.[31]

1.2 Significance of the Present Research Study

It has already been stated that job satisfaction is a worthwhile topic to investigate and that, while several factors have been associated with turnover, job satisfaction is one of the most often mentioned. This has resulted in several empirical studies of nurses' job satisfaction. Urden[32] points out that another important variable associated with employee turnover is "frustration with the organisational climate". Furthermore, it would appear that the reasons nurses leave their jobs are related to issues that healthcare administrators and nursing managers can control or have the ability to change. Therefore, a credible assumption would be that if organisations were to implement strategies that resulted in employee job satisfaction, then they should be able to retain their present complement of nurses. Following a research study involving 43,000 nurses from five countries Aiken *et al.*[33] concluded:

> ....beyond concerns that inadequate hospital nurse staffing will become chronic, there is every reason to believe that the problems in work design and

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[30] Ibid., p. 131.

[31] M.R. Lynn, E.L. Layman and S.P. Englebardt, "Nursing Administration Research Priorities," p.7-11.

[32] L.D. Urden, "The Impact of Organisational Climate on Nurse Satisfaction," Nursing Leadership Forum 4: 2 (1999): p. 44-48.

[33] Aiken, *et al.* "Nurses' Reports on Hospital Care in Five Countries," p. 52.

> workforce management that are reflected in the responses of the 43,000 nurses in our study contribute to uneven quality of care, medical errors, and adverse patient outcomes.[34]

Therefore, the need to examine the correlation between organisational climate and job satisfaction has become more urgent. To date, very few research studies have investigated this issue. More importantly, however, no known studies of this kind have been completed within the nursing profession in the Republic of Ireland. The present study is significant for several reasons.

Firstly, the findings from the present study will allow this researcher to determine the current level of job satisfaction among nurses. This would be a particularly interesting finding given that the literature would seem to indicate that nurses generally report low job satisfaction. Secondly, the information obtained from the present survey will determine which variables are important to nurses with regard to job satisfaction. This information is important because it will contribute to the existing body of knowledge on job satisfaction of nurses and to a better understanding of the variables responsible for increasing job satisfaction. Thirdly, the findings from this study will produce information to show how biographical factors affect job satisfaction among nurses. Fourthly, the findings will determine the nature of the correlation between organisational climate components and job satisfaction components. Fifthly, the findings from the present study will be used to confirm the usefulness of the framework developed and presented in Chapter Three. Sixthly, the findings from this study will be submitted to the authors of a database that has been compiled in the United States of America.[35] The primary goal of this activity is to compare the job satisfaction findings from the present study with those of other

[34] Ibid., p. 52.

[35] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 96.

international studies. This, it is hoped, will contribute to a better understanding of job satisfaction within the nursing profession. Research studies have revealed a relationship between organisational climate and job satisfaction. Such findings however, cannot be generalised to all nursing populations because (a) relatively few studies have examined this phenomenon in nursing and (b) the samples used in most of these studies were small and utilised non-probability sampling techniques. The present study will be able to generalise its findings given that it will use a fairly large sample and a probability sampling technique. Thus, the findings from the present study will make a contribution to the existing literature in this field. Finally, the findings from this study could be used by health care organisations in the Republic of Ireland to examine current practices and policies, with a view to modifying those practices that contribute to low job satisfaction among nurses.

1.3 Statement of the Research Problem

Several research studies have demonstrated the importance of employee job satisfaction.[36,37,38] There would appear to be a general consensus in the literature on nursing that nurses report relatively low levels of job satisfaction. [39,40,41,42,43,44] The

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[36] M.M. Gruneberg, Understanding Job Satisfaction (London: The Macmillan Press Ltd., 1997).

[37] B.M. Bass, Bass and Stogdill's Handbook of Leadership: Theory, Research and Managerial Applications 3rd ed., (New York: The Free Press, 1990).

[38] M. Price, "Job Satisfaction of Registered Nurses Working in an Acute Hospital," British Journal of Nursing 11: 4 (2002): p. 275-280.

[39] M.A. Blegen and C.W. Mueller, "Nurses Job Satisfaction: A Longitudinal Analysis," Research in Nursing and Health 10 (1987): p. 227-237.

[40] D.K. McNeese-Smith, "A Content Analysis of Staff Nurse Descriptions of Job Satisfaction and Dissatisfaction," Journal of Advanced Nursing 29: 6 (1999): p. 1332-1341.

[41] J.C. McCloskey, "Two Requirements for Job Contentment: Autonomy and Social Integration," IMAGE: Journal of Nursing Scholarship 22: 3 (1990): p. 140-143.

relationships between biographical variables such as age, education, and number of years experience have been examined in previous studies but the results were mixed. Some studies have demonstrated small to moderate correlations with job satisfaction[45] while others have reported no correlations.[46] It would seem that employee attitudes and behaviour are influenced not only by personal ability and disposition but also by the organisation within which they work.[47] Indeed, some studies have indicated a correlation between organisational climate and job satisfaction[48,49] and that low job satisfaction leads to increased turnover.[50,51,52] In view of the fact that nurses have reported relatively low levels of job satisfaction, that the relationships between biographical variables and job satisfaction are mixed, and that only a small number of nursing research studies have examined the nature of the relationship between organisational climate and job satisfaction among nurses it would seem both

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[42] E. Seymour and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing: Findings from a National Sample," International Journal of Nursing Studies 28: 2 (1991): p. 109-124.

[43] Aiken, *et al.* "Nurses' Reports on Hospital Care in Five Countries," p. 43-53.

[44] L.H. Aiken, S.P. Clarke and D.M. Sloane, "Hospital Staffing, Organisation, and Quality of Care: Cross-national Findings," International Journal for Quality in Health Care 14: 1 (2002): p. 5-13.

[45] M.A. Blegen, "Nurses Job Satisfaction", p. 36-41.

[46] M.H. Oermann, "Critical Care Nursing Education at the Baccalaureate Level: Study of Employment and Job Satisfaction," Heart and Lung Journal of Critical Care 24 (1995): p. 394-398.

[47] P.M. Muchinsky, Psychology Applied to Work, p. 258.

[48] L.D. Urden, "The Impact of Organisational Climate on Nurse Satisfaction," p. 44-48.

[49] K. Keuter, E. Byrne, J. Voell and E. Larson, "Nurses' Job Satisfaction and Organisational Climate in a Dynamic Work Environment," Applied Nursing Research 13: 1 (2000): p. 46-49.

[50] D.A. Gilles, M. Franklin and D.A. Child, "Relationship Between Organisational Climate and Job Satisfaction of Nursing Personnel," Nursing Administration Quarterly 14: 4 (1990): p. 15-22.

[51] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[52] L. Lum, J. Kervin, K. Clark, F. Reid and W. Sirola, "Explaining Nursing Turnover Intent: Job Satisfaction, Pay Satisfaction or Organisational Commitment," Journal of Organisational Behaviour 19 (998): p. 305-320.

appropriate and timely that a research study is undertaken to examine these issues. Such a research project becomes even more important when considered in association with the current shortage of nurses, the fact that no known research study has previously investigated the nature of the relationships between these variables within the Irish healthcare system, and that the findings could provide information that could potentially aid health service administrators and nursing managers in stemming the current flow of turnover.

1.4 Purpose of Study

The present study has several purposes. Firstly, it seeks to determine the current level of job satisfaction among nurses in the Republic of Ireland and to carry out a comparative analysis of these findings with those of other international studies. Secondly, it hopes to identify which of the Index of Work Satisfaction (IWS)[53] components made the greatest contribution to nurses' current level of job satisfaction (Part B of IWS). Such information will contribute to a better understanding of the variables responsible for job satisfaction among nurses in the Republic of Ireland. Thirdly, it seeks to establish the difference between (a) the IWS components that nurses regard as being *important* to their job satisfaction (Part A of IWS) and (b) the IWS components that are more likely to *contribute* to nurses' current level of job satisfaction (Part B of IWS). Fourthly, this study seeks to determine nurses' perceptions of their organisational climate. Fifthly, the present study hopes to (a) establish the nature of the relationships between organisational climate components and job satisfaction and (b) determine how biographical factors affect job satisfaction among nurses. Sixthly, the findings from the present study will be used to confirm

[53] The Index of Work Satisfaction is one of three questionnaires used in the present study. The questionnaire is made up of Parts A and B. A description of the questionnaire is given in Chapter Four.

the usefulness of the framework developed and presented in Chapter Three. Finally, the findings from the present study will be submitted to the authors of a database that has been complied in the United States of America. The primary goal of this activity is to obtain information from the database that will allow this researcher to compare the findings from the present study with those of other international studies.

Analyses of the data obtained from The Index of Work Satisfaction Questionnaire (IWS) will fulfil the first, second and third purposes of the present study. The fourth purpose will be achieved by asking subjects to complete The Nurse Organisational Climate Description Questionnaire (NOCDQ). This instrument will provide information about the nature of the climate of the organisations in which nurses' work. To achieve the fifth purpose of this study the data obtained from all three instruments will be analysed using bivariate and multiple regression analysis. To achieve the sixth purpose the results obtained from the bivariate analysis of the data will be used to conform the predictions made in the framework presented in Chapter Three. To achieve the seventh purpose analysed data from the present study will be submitted to the authors of a database in the United States of America. This database contains results from nursing research studies that have used the IWS to examine job satisfaction. When the results from the present study have been submitted to the database, data already contained in the database will be released to this researcher for use in the comparative analysis between the findings from this study and those of other studies.

1.5 Hypotheses

A hypothesis is a prediction or assumption made by the researcher of specific relationships between two or more variables. In other words it is a possible outcome

of the research. The hypothesis gives direction for the type of research design chosen and the statistical tests chosen for the study.[54,55,56] There are several ways in which hypotheses can be categorised. For the present study, however, the null and the alternative hypotheses will be used. The null hypotheses is usually written stating the opposite of what the researcher hopes to find; therefore, the statement must indicate that there will be no relationship between the variables. The rationale for using the null hypotheses is that statistical tests are designed to reject rather than accept hypotheses. In this sense rejection is an action word while acceptance is a passive one. Rejection of the null hypothesis is as close as one can get to confirming a hypothesis.

The alternative hypothesis is never actively rejected since it is not actually tested; only the null hypothesis is tested. The purpose of statistical analysis is to reject the null hypothesis, therefore supporting the alternative hypothesis. For this reason the alternative hypothesis will be written for each null hypothesis formulated. It is important to note that failure to reject the null hypothesis means only that the alternative hypothesis was not supported in the present study.[57] The value of a hypothesis is dependent upon whether it is testable in the real world. A testable hypothesis must contain variables that are measurable. A testable hypothesis must also be able to predict a relationship that can either be supported or refuted. When a hypothesis states an associative relationship, the data are subjected to correlational

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[54] S.Sarantakos, Social Research (Australia: Macmillan Education Australia PTY Ltd., 1993), p. 119.

[55] L.A. Talbot, Principles and Practice of Nursing Research (St. Louis, Missouri: Mosby-Year Book, 1995), p. 177.

[56] P.. Brink and M.J. Wood, Basic Steps in Planning Nursing Research – From Question to Proposal (Boson: Jones and Bartlett Publishers, 2001), p. 75.

[57] Ibd., p. 231.

analyses in order to establish the existence, type, and strength of the relationship between the variables under investigation.[58]

Following a review of the literature the following null hypotheses were formulated for testing. When testing hypotheses the alternative hypotheses are considered to be supported if the null hypothesis is rejected. For this reason an alternative hypothesis was formulated to accompany each null hypothesis.

Null Hypothesis 1:	There is no significant difference in the job satisfaction scores for females and males.
Alternative Hypothesis 1:	There is a significant difference in the job satisfaction scores for females and males.
Explanation	This first hypothesis is simple, non-associative and non-directional. The variables under examination are *gender* and *current level of job satisfaction*.
Null Hypothesis 2:	There are no differences in job satisfaction scores for nurses in the following age groups: 18-25 years, 26-36 years, 36-45 years, 46-55 years and over 55 years.
Alternative Hypothesis 2:	There are differences in job satisfaction scores for nurses in the following age groups: 18-25 years, 26-36 years, 36-45 years, 46-55 years and over 55 years.
Explanation	The second hypothesis is simple, non-associative and non-directional with two sets of variables *age group* and *job satisfaction*.
Null Hypothesis 3:	There is no significant difference in the job satisfaction scores for nurses working in the private and public healthcare sectors.
Alternative Hypothesis 3:	There is a significant difference in job satisfaction scores for nurses working in the private and public healthcare sectors.

[58] N. Burns and S.K. Grove, Understanding Nursing Research 2nd ed., (Philadelphia, W.B. Saunders Company, 1999), p. 81-102.

Explanation	Hypothesis three is simple, non-associative and non-directional with two sets of variables *healthcare sector* and *job satisfaction*.
Null Hypothesis 4:	There is no statistically significant difference in the job satisfaction scores for registered nurses and midwives, nurses with diplomas, and nurses with degrees.
Alternative Hypothesis 4:	There is a statistically significant difference in the job satisfaction scores for registered nurses and midwives, nurses with diplomas, and nurses with degrees.
Explanation	Hypothesis four is non-associative and non-directional. The variables under examination are *nursing education* and *job satisfaction*.
Null Hypothesis 5:	There is no statistically significant difference in job satisfaction scores for nurses working in a hospital environment and those working in a non-hospital environment.
Alternative Hypothesis 5:	There is a statistically significant difference in job satisfaction scores for nurses working in a hospital environment and those working in a non-hospital environment.
Explanation	This fifth hypothesis is non-associative and non-directional. The variables under investigation are *current place of employment* and *job satisfaction*.
Null Hypothesis 6:	There is no difference in job satisfaction scores for student nurses, qualified clinical nurses and non-clinical nurses.
Alternative Hypothesis 6:	There is a statistically significant difference in job satisfaction scores for student nurses, qualified clinical nurses and non-clinical nurses.
Explanation	Hypothesis six is non-associative and non-directional. The variables under investigation are *current position* and *job satisfaction*.
Null Hypothesis 7	There is no significant difference in job satisfaction scores for nurses who have been working in their current place of employment for less than five years and

	those who have been working in their current place of employment for over five years.
Alternative Hypothesis 7	There is a statistically significant difference in job satisfaction scores for nurses who have been working in their current place of employment for less than five years and those who have been working in their current place of employment for over five years.
Explanation	Hypothesis seven is non-associative and non-directional. The variables under investigation are *length of time in current place of employment* and *job satisfaction*.
Null Hypothesis 8	There are no significant positive or negative correlations between organisational climate components and job satisfaction components.
Alternative Hypothesis 8	There are statistically significant positive and negative correlations between organisational climate components and job satisfaction components.
Explanation	Hypothesis eight is associative and directional. The variables under investigation are *organizational climate components* and *job satisfaction components*.
Null Hypothesis 9	There are no statistically significant positive or negative correlations between organisational climate components and total job satisfaction.
Alternative Hypothesis 9	There are statistically significant positive and negative correlations between organisational climate components and total job satisfaction.
Explanation	Hypothesis nine is associative and directional. The variables under investigation are *organisational climate components* and *total job satisfaction*.

1.6 Operational Definitions of Variables

In order for a variable to become operational in a study it is necessary to develop both conceptual and operational definitions. A conceptual definition gives the theoretical

meaning of a variable[59] while the operational definition explains how the variable will be investigated in terms of the research design or instrument to be used in a particular study.[60] Theoretical and operational definitions of the following variables are provided.

1.6.1 Biographical Factors (independent variable)

Theoretical definition

Biographical factors[61] or biographical variables "are characteristics or attributes of subjects that are collected to describe the sample".[62] Examples include, age, education, gender, job classification and length of time in current place of employment.

Operational definition

Biographical factors were measured using the Biographical Questionnaire[63] developed by this researcher. The instrument contains ten biographical questions.

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[59] Ibd., p. 95-100.

[60] L.A. Talbot, Principles and Practice of Nursing Research, p. 188-189.

[61] Throughout this dissertation the term Biographical Factors or Biographical Variables is used in this technical formal sense.

[62] N.Burns and S.K. Grove, Understanding Nursing Research, p. 92-95.

[63] A copy of this instrument can be found in Appendix 3A.

1.6.2 Organisational Climate (independent variable)

Theoretical definition

Several definitions of the notion of organisational climate[64] have been identified in the literature. Pritchard and Karasick[65] however, synthesized definitions by several authors to define organisational climate as:

> a relatively enduring quality of an organisation's internal environment distinguishing it from other organisations; (a) which results from the behaviour and policies of members of the organisation, especially top management; (b) which is perceived by members of the organisation; (c) which serves as a basis for interpreting the situation; and (d) acts a source of pressure for directing activity.[66]

Operational definition

The notion of organisational climate was operationalised using The Nurse Organisational Climate Description Questionnaire[67] developed by Duxbury *et al.*[68] This questionnaire consists of six scales which are divided between "leader or manager behaviour" and "subordinate behaviour". Each scale consists of a set of positively or negatively worded phrases. A list containing the descriptive phrases that make up each of the six scales can be found in Appendix 5 C and 5 D. The six scales are identified below.

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[64] Unless otherwise stated the term Organisational Climate is used in this technical formal sense.

[65] R.D. Pritchard and B.W. Karasick, "The Effects of Organisational Climate on Managerial Job Performance and Job Satisfaction," Organisational Behaviour and Human Performance 9 (1973): p. 126-146.

[66] Ibid., p. 126.

[67] The Nurse Organisational Climate Description Questionnaire was used to measure organisational climate in the present study. A copy of this instrument can be found in Appendix 3 A.

[68] M.L. Duxbury, G.A. Henly and G.D. Armstrong, "Measurement of the Nurse Organisational Climate of Neonatal Intensive Care Units," Nursing Research 31: 2 (1982): p. 83-88.

Scales that Describe Subordinate Behaviour

The four scales that describe subordinate behaviour are Disengagement, Hindrance, Esprit, and Intimacy. These are defined below.

1. The notion of "Disengagement" refers to subordinates' tendency to be "not with it". This dimension describes a group that is "going through the motions", a group that is "not in gear" with respect to the task in hand.

2. The notion of "Hindrance" refers to subordinates' feeling that the leader burdens them with routine duties, committee demands, and other requirements which they construe as unnecessary "busywork".

3. The notion of "Esprit" refers to morale. The respondents feel their social needs are being met, and that at the same time they are enjoying a sense of accomplishment in their job.

4. The notion of "Intimacy" refers to subordinates enjoyment of friendly relations with each other. This dimension describes a social needs satisfaction not necessarily associated with task-accomplishment.

Leader/Manager Behaviour

The two scales that describe leader/manager behaviour are Aloofness, and Humanistic Thrust. These are defined below.

5 The notion of "Aloofness" refers to behaviour by the leader that is characterised as formal and impersonal. The leader goes by the book, is guided by rules and policies rather than deal with subordinates in an informal, face-to-face situation.

6 The notion of "Humanistic Thrust" refers to constructive leadership behaviours of the manager. These behaviours are marked not by close supervision, but by the manager's attempt to motivate subordinates by the example she or he sets. This

behaviour refers also to the manager's inclination to treat subordinates in a humane way – in other words doing something extra for them in humane terms.

1.6.3 Job Satisfaction (dependent variable)

Theoretical definition

Before selecting a definition of job satisfaction for this research study two considerations were taken into account. Firstly, job satisfaction is an affective response, which according to Muchinsky[69] is concerned with "feelings of like or dislike". Therefore, it was important to select a definition that reflected this assertion. Secondly, it would appear that job satisfaction is defined using one of two approaches. The first approach uses a "macro or global perspective" and focuses on general feelings about a job.[70] This approach is used when the emphasis is on overall evaluation of job satisfaction. For example, a researcher may wish to examine the effects of people liking or disliking their jobs. The second approach is concerned with job facets. This implies that the researcher is trying to establish the extent to which an individual is satisfied with different aspects or facets of their job. The present research study examined job satisfaction using the facet approach. Therefore, it was important to choose a definition that reflected both Muchinsky's view and the job facet approach. Job satisfaction[71] as defined by Spector[72] fulfils these criteria. Spector states: "Job satisfaction is simply how people feel about their jobs and

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[69] P.M. Muchinsky, Psychology Applied to Work, p. 290.

[70] S. Jayaratne, "The Antecedents, Consequences, and Correlates of Job Satisfaction," in Handbook of Organisational Behaviour, ed. R.T. Golembiewski, (New York: Marcel-Dekker, Inc., 1993), p. 111-140.

[71] Throughout this dissertation the term Job Satisfaction is used in this technical formal sense.

[72] P.E. Spector, Job Satisfaction: Application, Assessment, Causes and Consequences (Thousand Oaks, California: SAGE Publications, Inc., 1997), p. 2.

different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs".

Operational definition

Job satisfaction was operationalised using The Index of Work Satisfaction Questionnaire[73] (1997 revision) developed by Stamps.[74] This instrument consists of two parts and is designed to measure nurses' level of satisfaction with their work by examining six components of satisfaction. These components include Pay, Autonomy, Task Requirements, Organisational Policies, Professional Status and Interaction. A unique feature of this instrument is that it weights each of the six components based on its importance in providing satisfaction to the sample of nurses surveyed. This is achieved by using a paired-comparisons technique (Part A of the instrument) in which respondents are asked to choose the one member of each pair which is most important to them with regard to influencing their level of satisfaction for each of the 15 pairs of components.

Part B of the questionnaire measures satisfaction for each of the six components identified below, using a total of 44 attitude statements which make up this part of the scale. The six components of satisfaction are listed and defined below.

1. The notion of "Pay" refers to remuneration received for work done.
2. The notion of "Autonomy" refers to the amount of job related independence, initiative, and freedom, either permitted or required in daily work activities.

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[73] The Index of Work Satisfaction (IWS) Questionnaire was used to measure job satisfaction in the present study. A copy of this instrument can be found in Appendix 3 A.

[74] P.L. Stamps and Market Street Research, Scoring Workbook for the Index of Work Satisfaction (Northampton, MA: Market Street Research Inc., 2001).

3. The notion of "Task Requirements" refers to the tasks or activities that must be done as a regular part of a nurse's job.

4. The notion of "Organisational Policies" refers to the management policies and procedures put forward by the hospital and nursing administration of a hospital.

5. The notion of "Interaction" refers to the opportunities presented for both formal and informal social and professional contact during working hours.

6. The notion of "Professional Status" refers to the overall importance or significance felt about their job, both in the respondent's view and in the view of others.

1.7 Research Assumptions

Assumptions are beliefs that researchers have about phenomena that are considered to be true even though they have not been tested scientifically.[75] Quite often assumptions are concerned with relationships between phenomena. There are several types of assumptions: universal, theory based, empirically based, and research assumptions.[76] In dissertations, the researcher is expected to identify assumptions clearly. Its purpose is to strengthen the research study by allowing phenomenoen under study to be examined more rigorously. The present study is based on the following assumptions: (a) theoretically-based assumptions, (b) empirically-based assumptions, and (c) research-based assumptions.

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[75] N. Burns and S.K. Grove, Understanding Nursing Research p. 38-39

[76] L.A. Talbot, Principles and Practice of Nursing Research, p. 189-190.

1.7.1 Theoretically based Assumptions

(a) It is assumed that the principles of Herzberg's Two-Factor theory will provide a useful framework for interpreting the job satisfaction findings from the present research study.[77,78,79]

1.7.2 Empirically based Assumptions

(a) It is assumed that the current level of job satisfaction among nurses in this sample will be low.[80,81]

(b) It is assumed that biographical factors can affect job satisfaction among nurses. Some studies have shown small and inconsistent relationships between variables such as age and sex on job satisfaction.[82,83]

(c) It is assumed that there are statistically significant correlations between organisational climate components and job satisfaction components.[84,85]

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[77] C. Barrett and F. Myrick, "Job Satisfaction in Preceptorship and its Effect on the Clinical Performance of the Preceptee," Journal of Advanced Nursing 27: 2 (1998): p. 364-371.

[78] P.W. Koebel, S.G. Fuller and T.R. Misner, "Job Satisfaction of Nurse Practitioners: An Analysis Using Herzberg's Theory," Nurse Practitioner 16: 4 (1991): p. 43, 46, 48-56.

[79] C. Williams, "Job Satisfaction: Comparing Coronary Care and Medical/Surgical Nurses," p 104A-104H.

[80] L.H. Aiken, *et al.* "Nurses' Reports on Hospital Care in Five Countries," p. 43-53.

[81] E. Seymour and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing," p. 109-124.

[82] M.A. Blegen, "Nurses' Job Satisfaction," p. 36-41.

[83] M. Price, "Job Satisfaction of Registered Nurses Working in an Acute Hospital," p .275-280.

[84] K. Keuter, *et al.*, "Nurses' Job Satisfaction and Organisational Climate in a Dynamic Work Environment," p. 46-49.

[85] L.D. Urden, "The Impact of Organisational Climate on Nurse Satisfaction," p. 44-48.

1.7.3 Research based Assumptions

(a) It is assumed that the independent and dependent variables can be measured accurately using the instruments selected for this study.

(b) It is assumed that all respondents responded truthfully during the focus group interview and during completion of the questionnaire booklet. It is possible that respondents may have responded in a way that shows them and their organisations in a good light (this is referred to as a social desirability response bias).

(c) It is assumed that all respondents who participated in the questionnaire survey read the questionnaire correctly and answered appropriately.

(d) It is assumed that the knowledge gained from the present research study will contribute to a better understanding of (a) how biographical factors affect job satisfaction and (b) the relationships between organisational climate components and job satisfaction within the nursing profession.

1.8 Delimitations

Delimitations usually explain how the research study was narrowed in scope.

1. This study is concerned primarily with examining how biographical factors (independent variable) affect job satisfaction (dependent variable) and with the nature of the correlations between organisational climate components (independent variable) and job satisfaction (dependent variable) among nurses.

2. The target population was restricted to nurses and midwives who are currently employed in the Republic of Ireland.

3. A national sample of 2000 nurses was used for the main survey. All respondents were registered with *An Bord Altranais* (Irish Nursing Board) and were selected randomly.

4. The items used to assess biographical factors (independent variable), organisational climate (independent variable) and job satisfaction (dependent variable) were limited to those contained in the questionnaire booklet.

5. It will be possible to generalise the findings of the present study beyond the sample group because (a) the sample was selected using probability sampling, (b) because the sampling frame was created using nurses and midwives from all parts of the country, and (c) because inferential statistics will be used to analyse the data.

1.9 Structure of the Dissertation

This dissertation is comprised of nine chapters. Each chapter has an introduction, a main section and a conclusion. The only chapter that uses a slightly different format is the first chapter. This chapter entitled "Introduction" sets out several important issues concerning the present research study. It begins by introducing the reader to the background and justification for the study. It then goes on to address a wide range of issues, including the research problem, the purpose of the study, hypotheses, operational definitions of key variables, the research assumptions, and the delimitations of the present study. The chapter then informs the reader of the structure of the dissertation before concluding with a summary of the main issues discussed.

Chapter Two discusses the scholarly literature about biographical factors, organisational climate and job satisfaction. The purpose of this chapter is to share with the reader the results of other relevant research studies and to emphasise the need for the present study by drawing attention to the deficiencies in the literature. In brief, the literature examining the relationship between biographical factors and job satisfaction is rather complex. For the most part, studies have shown small and

inconsistent effects of variables such as age, education, gender, and personality factors on job satisfaction. This does not in any way indicate that these variables are not important, only that other organisational factors are more important. In view of such findings, it was considered necessary for the present study to investigate the relationship between biographical variables and job satisfaction.

The literature has indicated that the psychological environment of an organisation has a strong influence on the behaviour of its workers. This psychological environment of an organisation is what is generally known as organisational climate. The organisational climate of organisations has been of interest to researchers and practitioners alike for several decades. Numerous studies have been undertaken in educational institutions and business organisations. Few studies, however, have examined the organisational climate of hospitals and other health care institutions. Since such institutions play a crucial role in the delivery of health care it is important to learn more about their organisational climates and the influences of these climates on the behaviour of employees. The few nursing research studies, that have examined the relationship between organisational climate and job satisfaction, suggest that there is indeed a correlation between these two groups of variables. Chapter Two concludes by identifying the main deficiencies in the literature and by re-emphasising the need to undertake the present study.

Chapter Three summarises the theoretical literature for two of the main variables under investigation, namely job satisfaction and organisational climate. Having reviewed this body of literature the conclusion drawn by this researcher is that while there are several theories of job satisfaction that can be used to investigate job satisfaction it would appear that only one theory might be suitable for investigating

organisational climate. Furthermore, no theory suitable for investigating job satisfaction and organisational climate jointly was found. While many of the nursing research studies reviewed did not report the testing of a particular theory some did indicate that they had used Herzberg's Two-Factor theory as a framework for their studies. No detailed explanations, however, as to how the principles of this theory were used to guide these studies were provided.

This lack of a suitable theory for investigating organisational climate and job satisfaction meant that the present study was unable to use a framework that included the testing of a theory. Instead, this researcher proposed a tentative framework to guide the present study. The framework is in two parts. Part one was constructed using the variables under investigation and the assumptions derived from previous research to predict the outcomes between the independent and dependent variables. This part of the framework will be tested and the findings used to confirm the usefulness of the framework for investigating job satisfaction among nurses. Part two of the framework, utilised a conceptual map of Herzberg's Two-Factor theory to denonstrate the similarities between this theory and the components of the Index of Work Satisfaction (IWS) questionnaire which was used to measure job satisfaction in thepresent study. This part of the framework will not be tested. Its use within the franework is confined to interpreting the findings from the IWS questionnaire.

Chapter Four, entitled "Methodology" provides information about how this study was planned and executed, and where appropriate, justifies decisions taken. It reminds the reader initially, of the purpose of the study, the hypotheses to be tested, and the meaning of the term methodology. Next, the chapter draws attention to the debate surounding the superiority of either of the two major research paradigms or models.

These two paradigms are known as the positivist or empiricist approach and the constructivist or phenomenological approach. It has been suggested that instead of viewing research approaches as dichotomies they should be regarded as being compatible. This compatibility of the two research approaches is possible under a different paradigm referred to by some theorists as "pragmatism". Pragmatically oriented theorists and researchers now use the term "mixed methods"[86] or mixed methodology, which combine both quantitative and qualitative approaches into the methodology of a single study. Although the use of mixed methods is desirable it is not without its limitations. Therefore, the main weaknesses associated with the use of mixed methods design are discussed. The remainder of this chapter is devoted to various methodological issues including study design, sampling techniques, data collection procedures, measurement instruments, outcome of the pilot study, ethical standards employed during the conduct of the research, data analysis procedures, and a report on the conduct and outcome of the focus group interview.

Chapter Five, entitled "Descriptive Findings" provides the descriptive results from each of the three instruments. Descriptive statistics were used to describe the characteristics of the sample and the values obtained from the variables measured. Descriptive statistics used include frequency distributions, measures of central tendency and standardised scores. The findings are presented in the same format as that used in the construction of the questionnaire. It begins with the findings from the biographical questionnaire then the findings from the Nurse Organisational Climate Description Questionnaire (NOCDQ) and finally the findings from the index of Work Satisfaction (IWS) questionnaire. The main findings revealed low to moderate levels

[86] A mixed method study refers to a research study in which the researcher uses more than one method of data collection and analysis. John Creswell, Research Design p. 174-175.

of job satisfaction, and moderate ratings for most of the six components of organisational climate. In addition, the findings indicated that Autonomy, Pay, and Interaction were regarded as important to job satisfaction, while Professional Status, Interaction, and Autonomy made the greatest contribution to nurses' current level of job satisfaction.

Chapter Six presents the bivariate and multiple regression analyses of the data. The introduction to this chapter informed the reader of the statistical procedures used for both the bivariate and multiple regression analyses. The bivariate analysis is presented first and is structured using the "null" and "alternative" hypotheses. This format allowed the results to be reported in a logical and systematic manner. The findings obtained from these analyses confirmed some significant results. For example, findings confirmed (a) that there were significant differences between gender and job satisfaction, (b) that age does indeed play a role in job satisfaction, (c) that nurses working in the private healthcare sector are more likely to enjoy greater job satisfaction than those working in the public healthcare sector, (d) that nurses with higher level qualifications are less satisfied than those with lower level qualifications, (e) that nurses working in an acute hospital environment are less satisfied with their jobs than nurses working in non-acute environments, (f) that there are significant differences in job satisfaction scores for nurses working in different positions, and (g) that there are no significant differences between tenure and job satisfaction.

Significant correlations between organisational climate components and job satisfaction were also reported. With regard to the positive components of organisational climate there were significant positive correlations between Esprit and job satisfaction and between Humanistic Thrust and job satisfaction. With regard to

the negative components of organisational climate there was a significant negative correlation between Disengagement and job satisfaction and between Hindrance and job satisfaction. The multiple regression analyses revealed that organisational climate components accounted for 46.7 % of the variance in job satisfaction and was significant at the $p<.0005$ level.

Chapter Seven discusses the findings from the present study in light of previous research. The chapter begins by reminding the reader of the purposes of the study and of the hypotheses that were formulated and tested. With regard to the descriptive findings on job satisfaction comparisons revealed similarities with other international studies. Findings from studies that examined the effects of biographical factors on job satisfaction indicated both similarities and differences to the findings from the present study. The findings from the correlation analysis from the present study, however, were more consistent with those of other research studies. Unfortunately, it was not possible to compare the findings from the multiple regression analyses from the present study with those of other studies since such findings were not reported by any of the studies reviewed.

Chapter Eight, entitled "Confirmation of the Framework" uses the findings from the present study to modify and confirm the usefulness of the framework that was developed and presented in Chapter Three. After a short introduction Chapter Eight moved on to discuss how the framework was developed. The framework was useful during several stages of the present study but it was particularly useful in predicting (a) the outcomes between biographical factors and job satisfaction and (b) the correlation between organisational climate components and job satisfaction. The

chapter concluded with a discussion of the implications of the framework for research and practice.

Chapter Nine, entitled "Summary and Conclusion" begins by reminding the reader of the background that led to the present study. This is followed by a short summary of the content of each of the chapters. Next, the chapter summarises the main findings before explaining how the findings from the present study has contributed to nursing knowledge. Chapter Nine then moves on to discuss a rather important stage of the research process, namely the implications of the findings for the nursing profession. The chapter concludes by informing the reader of the study's main limitations.

1.10 Summary of the Chapter

In this introductory chapter information on several key issues relevant to the present research study was provided. Firstly, it informed the reader of the events that led to the study. The justification and need for the present study were discussed next. Because the research problem emerged from the scholarly literature, it was important to present an overview of the literature and to draw attention, where appropriate, to its deficiencies. Two major deficiencies highlighted were the lack of nursing research studies examining (a) how biographical factors affect job satisfaction and (b) the association between organisational climate and job satisfaction among nurses. The chapter went on to outline the different ways in which this research study will contribute to research in this area. Having addressed these key issues, this chapter then communicates to the reader information about the research problem, purpose of the study, hypotheses formulated for testing, assumptions upon which the study were based, and the delimitations of the study. This chapter concludes by providing a summary of the structure of the dissertation.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

2.1 Introduction

Chapter One informed the reader of the justification and need for the present study. In addition, it went on to provide information about issues such as the research problem, the purpose of the study, hypotheses to be tested, and the assumptions upon which the present study were based. The present chapter provides a summary of the literature reviewed. The purpose of reviewing the literature is threefold. Firstly, it relates the present study to the larger discussion in the literature about the topic or variables under investigation. Secondly, it informs the reader about the findings of other studies similar to the present study and, where necessary, identifies deficiencies. Thirdly, it provides a basis or framework for establishing the need and justification for the present study, as well as a benchmark for comparing the findings from the present study.

Job satisfaction is one of the most researched topics in psychology[1,2,3] and whilst there is no definitive list of the number of publications, Locke[4] estimated that in excess of 3,000 articles or dissertations have been written on the topic, and that this must be

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[1] F.E. Saal, and P.A. Knight, Industrial/Organisational Psychology: Science and Practice 2nd ed., (Pacific Grove, California: Brooks/Cole Publishing Company, 1995), p. 279.

[2] P.M. Muchinsky, Psychology Applied to Work: An Introduction to Industrial and Organisational Psychology, p. 289.

[3] M.M. Gruneberg, Understanding Job Satisfaction, p. 1.

[4] E.A. Locke, "The Nature and Causes of Job Satisfaction," in Handbook of Industrial and Organisational Psychology, ed. M,D. Dunnette (New York: John Weiley & Sons, 1983), p. 1297.

considered a conservative estimate since his literature search was not exhaustive. Using the key words job satisfaction a computer search on PSYCINFO in 1991 by Jayaratne[5] produced a total of 6247 articles or dissertations. Using the same key words, a search undertaken by this researcher in 2004 on PsycINFO produced a total of 18,602 articles or dissertations. Some authors have attempted to explain the reasons why job satisfaction is so widely researched. Gruneberg[6] suggests that the reason this topic is so well researched is not difficult to explain. He points out that because most individuals spend a large part of their lives at work, understanding the factors that contribute to job satisfaction is important to improving the overall well-being of individuals in this aspect of their lives. A further reason suggested by Gruneberg for investigating job satisfaction lies in the assumption that increasing job satisfaction will increase productivity and ultimately organisational output.

Muchinsky[7] also offers reasons for the enormous interest in this topic. He suggests three reasons, which he calls (a) cultural, (b) functional, and (c) historical. The first reason is cultural and stems from the belief that the United States as a nation values individual freedom, personal growth, and opportunity. In addition, Americans are particularly concerned about issues such as whether people like their jobs, whether they have the freedom to express their feelings, and whether they have the ability to alter their future through work. Such hallmarks of American life have led to the belief that everyone has a right to a job that is satisfying and rewarding. The second reason

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[5] S. Jayaratne, "The Antecedents, Consequences, and Correlates of Job Satisfaction," p. 111.

[6] M.M. Gruneberg, Understanding Job Satisfaction, p. 1.

[7] P.M. Muchinsky, Psychology Applied to Work: An Introduction to Industrial and Organisational Psychology, p. 289.

for interest in job satisfaction is functional. Muchinsky[8] argues that job satisfaction has intrinsic value, but that research has shown that satisfaction is also related to other important variables such as absenteeism, turnover and performance. Although it is not known whether there is a causal relationship between job satisfaction and these variables what is certainly known is that feelings of high job satisfaction are associated with certain levels of these variables. Most employers would desire a reduction in employee turnover, less absenteeism and better performance. Therefore, increasing job satisfaction may well help in achieving these goals.

The final reason proposed by Muchinsky[9] is historical. The *Hawthorne Studies*[10] in the 1920s started out by examining the effects of work breaks and illumination on productivity, but researchers soon shifted their interest to employee attitudes. Research findings showed that workers had strong feelings about their work. The *Hawthorne Studies* led to a shift in emphasis with regard to work-related research. Research examining economic and structural variables was superseded by research on interpersonal and attitude factors. The first thorough study of job satisfaction appeared a few years after the *Hawthorne Studies* were published. Hoppock[11] examined how factors such as fatigue, working conditions, supervision and achievement affected job satisfaction.

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[8] bid., p. 289.

[9] bid., p. 290.

[10] In 1924, a series of experiments began at the Hawthorne Works of the Western Electric Company. These studies were a joint venture between Western Electric and several researchers from Harvard University. The original study set out to examine the relationship between lighting and efficiency. Many authors believe that Hawthorne studies were the most important research programme undertaken toexplore the issue of production in relation to efficiency.(Muchinsky, p. 15)

[11] R. Hoppock, Job Satisfaction (New York: Harper & Row, 1935).

In the literature on nursing research interest in nurses' job satisfaction is growing.[12] Several authors have reported that research on nurses' job satisfaction is of interest to health care managers and social scientists because it is directly related to variables such as absenteeism and turnover, which can result in reduced productivity and quality in health care services.[13,14,15,16] Other studies have shown that job satisfaction is positively correlated with nurses' physical and mental well being.[17,18,19,20]

Job satisfaction has been conceptualised in one of three ways in the literature on nursing. Some studies measure job satisfaction as an independent variable, focusing on personal characteristics of nurses, personality types and demographic factors. A second category conceptualises job satisfaction as a dependent variable and reports those studies that examine job satisfaction as an outcome of a specific job that nurses do. A third category which also measures job satisfaction as a dependent variable views job satisfaction as an outcome of organisational factors.[21]

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[12]P.L. Stamps, Nurses and Work Satisfaction: An Index for Work Satisfaction, p. 33.

[13] J. McCloskey, "Influence of Rewards and Incentives on Staff Nurse Turnover rate," p. 238-247.

[14] M.A. Wandelt, R.M. Pierce, and R.R. Widdowson, "Why Nurses Leave Nursing and What Can be Done About it," p. 72-77.

[15] G.A. Wolf, "Nurses' Turnover: Some Causes and Solutions," p. 233-236.

[16] P.H. Prestholdt, I.M. Lane, and R.C. Mathews, "Predicting Staff Nurse Turnover," p. 145-150.

[17] P. Matrunola, "Is there a Relationship Between Job Satisfaction and Absenteeism?", p. 827-834.

[18] A. Molassiotis, and M. Haberman, "Evaluation of Burnout and Job Satisfaction in Marrow Transplant Nurse,", p. 360-367.

[19]J.D. Cangelosi, F.S. Markham, and W.T. Bounds, "Factors Related to Nurse Retention and Turnover: An Updated Study," p. 25-43.

[20] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[21] P.L. Stamps, Nurses and Work Satisfaction: An Index for Work Satisfaction, p. 41-43.

In the 1980s most of the research studies on nursing were descriptive and focused on a specific type of job. Such studies evaluated some type of innovation that would result in changes to the job rather than the organisation itself[22] and contributed to a better understanding of a particular aspect of nursing. The literature of the 1990s saw a reduction in the number of descriptive studies and a shift in focus from the actual job to examining job satisfaction in relation to wider organisational issues.[23]

In view of the plethora of relevant material on job satisfaction it soon became clear that providing a comprehensive review of the literature would be a formidable task. Delimiting the literature was identified by Creswell[24] as a problem for most researchers and as a result proposed a model to assist in delimiting the literature. The model recommends writing the review of the literature in sections related to (a) major independent variables, (b) major dependent variables and (c) studies that relate the independent and dependent variables. This researcher found this model attractive for two reasons. Firstly, job satisfaction has been conceptualised in the literature in one of three ways: (a) as an independent variable, (b) as a dependent variable reporting job satisfaction as an outcome of a specific job and (c) as a dependent variable but reporting studies that conceptualise job satisfaction as an outcome of organisational factors. Thus, this model is similar to the manner in which the literature on nursing has been conceptualised. Secondly, this model allows this researcher to delimit the

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[22] C. Williams, "Comparing Coronary Care and Medical/Surgical Nurses," p. 104A-104H.

[23] M. Kramer, and C. Schmalenberg, "Learning from Success: Autonomy and Empowerment," Nursing Management 24: (1993): p. 58-64.

[24] J.W. Creswell, Research Design: Qualitative and Quantitative Approaches (London: SAGE Publications, 1994), p. 28.

literature by focusing mainly on research findings relevant to the variables under investigation in the present research study.

The literature review in a research dissertation can be presented in one of several forms. Cooper[25] suggested three different forms of literature review. They can be (a) integrative, where researchers summarise past research studies (b) theoretical, wherein the researcher focuses on existing theory relating to the issue being studied or (c) methodological, in which the researcher presents not only a summary of studies but also includes a critique of the strengths and weaknesses of the methodologies used by various researchers. While there seems to be no consensus about which method is preferable, Cresswell[26] suggests that the integrative approach is quite popular in dissertations and dissertation proposals. In the present study the integrative approach will predominate. In reporting those studies that relate the independent variable to the dependent variable, however, a combination of the integrative and methodological approaches will be used.

The vast amount of material available on job satisfaction made early attempts to begin writing an overview of the literature quite difficult. To assist in this process, this researcher decided to draw a map of the major issues addressed in the literature. This map helped to build a visual picture of the research literature and assisted in the construction of the present chapter. This map is demonstrated in Figure 1. While the map does not contain all the sections addressed in the chapter, it nonetheless offers a summary of the main issues.

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[25] H. Cooper, The Integrative Research Review: A Systematic Approach (Beverly Hills, CA.: Sage, 1984), p. 10-11.

[26] J.W. Creswell, Research Design: Qualitative and Quantitative Approaches, p. 22.

This chapter is structured using Creswell's model. Briefly, this model advocates using three components to present a literature review. These components are: (a) literature about the independent variables, (b) literature about the dependent variable and (c) literature relating the independent variable to the dependent variable. The review therefore begins by discussing research studies about biographical factors and includes education, gender, age and personality factors. Included in this section also is a review of some of the major issues regarding organisational climate, which is the second independent variable under investigation in the present study.

The next major section of the review addresses the literature about the dependent variable, namely, job satisfaction. This material addresses two main themes. Firstly, the literature that examines job satisfaction as a function of a specific job is summarised. Secondly, the literature that conceptualises job satisfaction as a function of the organisation is addressed.

The chapter then moves on to address the literature that relates the independent variable to the dependent variable. With regard to the present study, this involved reviewing studies that investigated the relationship between organisational climate and job satisfaction among nurses. Having completed a review of the relevant literature, it was important to draw attention to its main deficiencies and explain how the present study will address them. The chapter concludes with a comprehensive summary of the main issues that emerged from the literature review.

Map of Related Literature

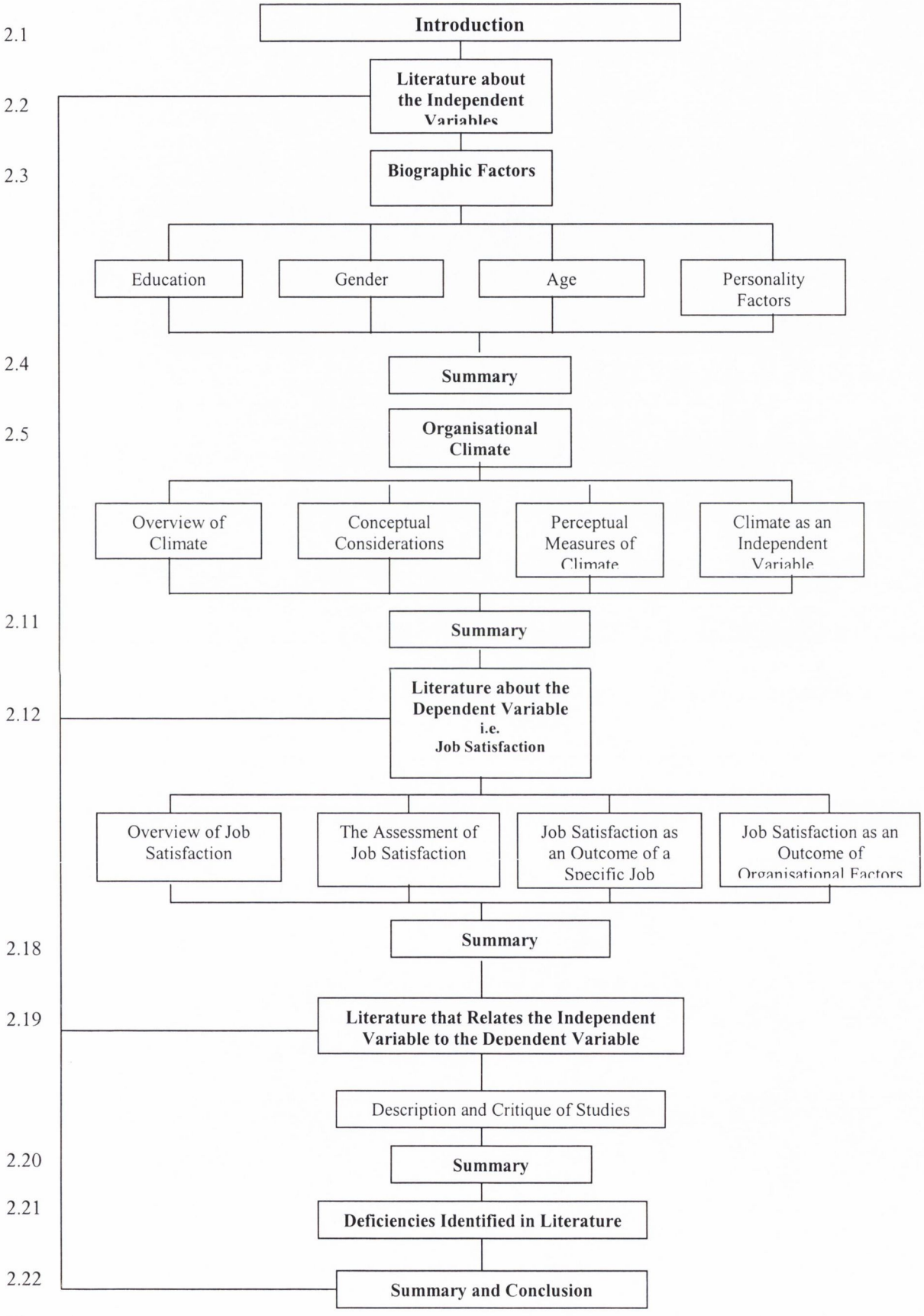

Figure 1

2.2 Scholarly Literature About The Independent Variables

As stated in the introduction to this chapter, the model used for presenting the literature review involved three major themes. These are (a) scholarly literature about the independent variables (b) scholarly literature about the dependent variable and (c) scholarly literature that relates the independent variables to the dependent variable.

In addressing the literature about the independent variables, two categories of variables were considered. The first relates to demographic and personal factors. The studies in this category tend to focus specifically on personal characteristics of the nurse, on personality traits as well as on demographic characteristics.[27] This section of the literature review will present studies that explored job satisfaction in relation to education, gender, age and personality factors. It is important to note that in the literature some studies measure job satisfaction as if it were an independent variable. Such studies focus on the relationship between job satisfaction and variables such as personal characteristics of nurses, personality traits and demographic factors. In the present study, job satisfaction is measured as a dependent variable, while biographical factors constitute an independent variable. The second independent variable is Organisational Climate. This section of the literature review focused on issues such as the evolution of the construct climate, conceptual considerations, measures of organisational climate and a summary of relevant studies.

2.3 Biographical Factors

Most of the research studies reviewed collected some type of biographical data. In many instances this is done because most researchers collect this type of information.

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[27] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 32.

Biographical factors in addition, may help to explain a particular set of findings while other researchers specifically set out to explore the relationship between a particular set of biographical factors and job satisfaction.[28] The most frequently examined factors are education, gender, age and personality traits.

2.3.1 Education

Of all the biographical variables education is probably one of those most frequently examined by researchers. This is probably due to the fact that there is some variation in the educational preparation of nurses.[29] Generally, however, education is included as a minor component within studies and only occasionally is a study undertaken specifically to examine the relationship between educational preparation and job satisfaction.[30] One such study was undertaken by Stewart-Dedmon.[31] This study examined satisfaction among nurses from three different nursing education programmes. The findings indicate that baccalaureate-and diploma-prepared nurses were significantly less satisfied than their counterparts who undertook an associate degree programme.[32] Nevertheless, the author concluded that while educational preparation is considered to be important in relation to job satisfaction it could not be regarded as the predominant factor.

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[28]Ibid., p. 34.

[29]Ibid.

[30]Ibid.

[31]M. Stewart-Dedmon, "Job Satisfaction of New Graduates," Western Journal of Nursing Research 10 (1988): p. 66-72.

[32]Associate Degree Programme – refers to a two-year programme of nurse training offered to nurses in USA. It started in 1952 to alleviate a critical shortage of nurses by decreasing the length of the education process to two years and offering the programme in community/junior colleges.

In a meta-analysis of 139 studies published between 1958 and 1985, Johnson [33] examined the effects of three different nursing education programmes on nurse performance. The findings of this study were mixed. For example, the author reported that baccalaureate nurses performed professional nurse behaviours at a level above associate degree and diploma nurses, while no differences were demonstrated between associate degree and diploma nurses. Despite this, Johnson[34] stated that these findings were consistent with those reported by other researchers. In 1994 Schutzenhofer and Musser[35] surveyed nurses undertaking different educational programmes. In this study the authors divided educational preparation into two categories, (a) a basic nursing programme and (b) "highest degree" level. Rather than examine the relationship between education and satisfaction, the authors measured the association between education and autonomy, because autonomy was considered to be positively related to satisfaction. The findings showed a positive relationship between highest level of nursing education and autonomy.

In 1993 Blegen[36] undertook a meta-analysis of the nursing satisfaction literature to determine the factors most important to job satisfaction. Over 200 published and 50 unpublished studies were reviewed but only 48 of these met the inclusion criteria. The author found that education was often one of the variables examined by researchers in studies of job satisfaction. However, in this meta-analysis the author reported small to moderate correlations between education and job satisfaction. Witt

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[3] J.H. Johnson, "Differences in the Performance of Baccaulareate, Associate Degree and Diploma Nurses: A meta-Analysis," Research in Nursing and Health 11 (1988): p. 183-97.

[3] Ibid., p. 191.

[3] K.K. Schutzenhofer, and D.B. Musser, "Nurse Characteristics and Professional Autonomy," Image: Journal of Nursing Scholarship 26 (1994): p. 201-5.

[3] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

et al.[37] undertook a study to examine the impact participation in decision-making had on the relationship between organisational politics and expressions of job satisfaction among public sector employees. The authors reported a weak relationship between education and job satisfaction scores. These findings are interesting for two reasons. Firstly, the sample was fairly large (1,251 respondents returned completed questionnaires) and secondly, the authors assessed non-response bias by comparing demographic characteristics obtained from the human resource information system and those of the self reported sample. The outcome of this comparison revealed that for education the sample used was not representative of the population.[38]

Weisman, Alexander and Chase[39] undertook a study to explore the importance of types of independent variables as predictors of individuals' job satisfaction. These authors reported that having a baccalaureate degree had no impact on satisfaction at either of the hospitals studied, despite evidence in the literature that a negative relationship exists. Oermann[40] designed a study to examine the impact of a degree level course in critical care nursing on employment patterns and job satisfaction. The job satisfaction of nurses who completed the critical care course was compared with that of nurses who did not have these educational experiences. While the findings revealed benefits from undertaking the course (such as an awareness of the role and

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[37] L.A. Witt, M.C. Andrews, and K.M. Kacmar, "The Role of Participation in Decision-making in the Organisational Politics-Job Satisfaction Relationship," Human Relations 53 (2000): p. 341-358.

[38] Ibid. p. 344.

[39] C.S. Weisman, C.S. Alexander, and G.A. Chase, "Job Satisfaction Among Hospital Nurses: A Longitudinal Study," Health Services Research 15 (1980): p. 341-364.

[40] M.H. Oermann, "Critical Care Nursing Education at the Baccalaureate Level: Study of Employment and Job Satisfaction," p. 394-398.

activities of the critical care nurse and greater confidence in skill) no differences were found in job satisfaction between these two groups of nurses.

2.3.2 Gender

Another variable that is often included in studies of job satisfaction is gender. The reason for this is probably due to the composition of the nursing profession, which is usually categorised as a female-dominated profession. This does not necessarily mean that women occupy the highest number of senior positions.[41] In a survey of nurses to determine sources of satisfaction and dissatisfaction Seymour and Buscherhof[42] found that, of all the problems identified, gender roles and women's socialisation issues were the third most frequently mentioned. Authors such as Koeckeritz[43] used feminist theory to examine job satisfaction. This study found that feminist attitudes did not prove to be statistically significant as a predictor of overall job satisfaction, but were negatively correlated with satisfaction with pay, task requirements, and nurse-physician interaction.

Witt *et al.*[44] undertook a study, to examine the impact participation in decision-making had on the relationship between perceptions of organisational politics and expressions of job satisfaction, among public sector employees. These authors reported a weak relationship between sex, participation in decision-making (PDM),

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[41] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 35.

[42] E. Seymour, and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing: Findings from a National Sample," p. 109-24.

[43] J. Koeckeritz, "Domestic Labour Responsibilities, Feminist Attitudes, and Job Satisfaction of Staff Nurses," in: Nurses and Work Satisfaction: An Index for Work Satisfaction, P.L. Stamps 2nd ed., (Chicago, Illinois: Health Administration Press 1997), p. 303.

[44] L.A. Witt, M.C. Andrews, and K.M. Kacmar, "The Role of Participation in Decision-making in the Organisational Politics-Job Satisfaction Relationship," p. 341-358.

politics, and job satisfaction scores. These findings are interesting because of two reasons. First, the sample was fairly large (1,251 respondents returned completed questionnaires) and second, the authors assessed non-response bias by comparing demographic characteristics obtained from the human resource information system and those of the self reported sample. Comparisons revealed that the sample was representative of the population on sex.[45]

Petterson *et al.*[46] undertook a study to examine the relationship between job satisfaction and a number of variables including job influence, work relations, and health among Swedish nurses. Their results revealed that female nurses (44%) were significantly more satisfied than male nurses (35%). The sample in this group consisted of 85% female nurses and 15% (roughly 404) male nurses. While it is true that females outnumbered males in this study it certainly is one of the largest samples of male nurses reported in the literature.

Sari[47] undertook a study in Turkey to determine whether there was a difference between head teachers' and teachers' burnout and job satisfaction in terms of work status, gender and work experiences. The sample consisted of 295 subjects, 141 (47.8%) were males and 154 (52.2%) were females. The results indicated that female teachers (mean = 43.83) experienced more job satisfaction than their male counterparts (mean = 40.93). A strength of this study is that the number of female

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[45] Ibid., p. 344.

[46] I.L. Petterson, B.B. Arnetz, and J.E. Arnetz, "Predictors of Job Satisfaction and Job Influence – Results from a National Sample of Swedish Nurses," Psychotherapy and Psychosomatics 64 (1995): p. 9-19.

[47] H. Sari, "An Analysis of Burnout and Job Satisfaction Among Turkish Special School Headteachers and Teachers, and the Factors Effecting their Burnout and Job Satisfaction," Educational Studies 30: 3 (2004): p. 291-306.

teachers who participated in the study was similar to the number of males. It is important however, to remember that the overall sample was only 295.

Earlier studies have demonstrated that males and females differ in what they expect from a job. For example, Schuler[48] found that females preferred to work with pleasant employees, whereas males valued opportunities to participate in decision making and in directing the work of others. A study by Brief and Oliver,[49] however, did not show any sex differences in work attitudes when controlled for occupation and organisation level. Not only is it likely that males and females differ in what they expect in their jobs, they also seem to differ in the way they are treated in the organisation. For example, Hulin and Smith[50] found that females are likely to be paid differently from males and to experience different opportunities for promotion. These authors suggest that if these conditions changed, it is possible that females might be as satisfied as males.

2.3.3 Age

Age is another biographical variable that is often included in job satisfaction studies. In the literature on nursing some researchers define and measure age in one of three ways. Firstly, they define age as the length of time a nurse spends in a specific job; secondly, as the overall length of a nurse's professional experience; and thirdly, actual

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[48] R.S. Schuler, "Sex, Organisation Level and Outcome Importance: Where the Differences are," Personal Psychology 28 (1975): p. 365-75.

[49] A.P. Brief, and R.L. Oliver, "Male-Female Differences in Work Attitudes Among Retail Sales Managers,". Journal of Applied Psychology 61 (1976): p. 526-8.

[50] C.L. Hulin, and P.C. Smith, "Sex Differences in Job Satisfaction,". Journal of Applied Psychology 48 (1964): p. 88-92.

chronological age. Blegen[51] reported that information on age was included as often as information on education in research studies and that, like education, it had only small to moderate levels of correlation with job satisfaction.

In another study, designed to examine level of satisfaction in relation to participative management initiatives, Lucas[52] found only a small relationship between age and satisfaction. There was a stronger relationship between satisfaction and length of time in a specific job. In contrast, Oermann[53] found no relationship between job satisfaction and age, years of experience as a registered nurse or years of experience in critical care nursing. Studies by Agho[54] and Baggs and Ryan[55] found a relationship between age and level of satisfaction. What was interesting about the findings of both these studies was that less experienced nurses and younger nurses were more satisfied than their more experienced and older colleagues. This is in contrast to other findings, which demonstrate that satisfaction in nursing increases with age.[56,57,58,59]

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[51] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables", p. 36-41.

[52] M.D. Lucas, "Management Style and Staff Nurse Job Satisfaction," Journal of Professional Nursing 7 (1991): p. 119-25.

[53] M. H. Oermann, "Critical Care Nursing Education at the Baccalaureate Level: Study of Employment and Job Satisfaction," p. 394-398.

[54] A. Agho, "The Moderating Effects of Dispositional Affectivity on Relationships Between Job Characteristics and Nurses' Job Satisfaction," Research in Nursing and Health 16 (1993): p. 451-58.

[55] J.G. Baggs, and S.A. Ryan, "ICU Nurse-Physician Collaboration & Nursing Satisfaction," Nursing Economics 8 (1990): p. 386-92.

[56] D.M. Malik, "Career Ladders: Position Enrichment vis-à-vis Tenure," Nursing Management 22 (1991): p. 120A-120F.

[57] C. Williams, "Job Satisfaction: Comparing CC with Med/Surg. Nurses,"p. 104A-104H.

[58] M. A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[59] B.E. Wade, "The Job Satisfaction of Health Visitors, District Nurses and Practice Nurses Working in Areas Served by Four Trusts: Year 1," Journal of Advanced Nursing 18 (1993): p. 992-1004.

As early as 1957 Herzberg *et al.*[60] reporting on the relationship between job satisfaction and age, indicated that job satisfaction among men starts off at a high level, declines, and then starts to improve again with increasing age. A study by Glenn *et al.*[61] revealed that job satisfaction among females also increased with age. In trying to explain the reason for an increase in job satisfaction as workers become older, Herzberg *et al.* suggest that this occurs because individuals adjust to their work and life situation. There are however, several issues that researchers must consider when trying to interpret such findings. For example, level of education, moral values, cultural background and life experiences vary at different ages. Therefore, values and expectations of different age groups will be different.[62]

A study to determine the impact participation in decision-making (PDM) had on the relationship between perceptions of organisational politics and expressions of job satisfaction was undertaken by Witt *et al.*[63] These authors found that age and time in organisation were weakly related to participation in decision-making (PDM), politics and job satisfaction scores. Two points are worthy of note. Firstly, the sample was fairly large (1,251 respondents returned completed questionnaires) and secondly, the authors assessed non-response bias by comparing demographic characteristics obtained from the human resource information system and those of the self reported

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[60] F. Herzberg, B. Mausner, R.O. Peterson, and D.F. Capwell, Job Attitudes: Review of Research and Opinion (Pittsburgh, Pennsylvania: Psychological Services of Pittsburgh, 1957, p. 5-35).

[61] W.D. Glenn, P.A. Taylor, and C.N. Weaver, "Age and Job Satisfaction Among Males and Females: A Multivariate, Multisurvey Study," Journal of Applied Psychology 62 (1977): p. 189-93.

[62] M.M. Gruneberg, Understanding Job Satisfaction, p. 90-92.

[63] L.A. Witt, M.C. Andrews, and K.M. Kacmar, "The Role of Participation in Decision-making in the Organisational Politics-Job Satisfaction Relationship," p. 347.

sample. Comparisons revealed that the sample was representative of the population for age.[64]

2.3.4 Personality Factors

Some studies have examined the relationship between personality factors and job satisfaction but, on the whole, this area is very under-researched. Early research on boredom concluded, that personality factors such as calmness and a phlegmatic nature, were particularly suited for repetitive work.[65] A study was undertaken by McCrea[66] to investigate whether it is possible to improve retention rates by selecting nurses who have a personality capable of tolerating stress. The results indicated that there is a link between perceived work satisfaction and personality hardiness (perceptions of and response to stress) among critical care nurses. An important feature of this study is that these findings were used to create a framework for change in the recruitment and selection process of critical care nurses. Agho[67] undertook a study to determine the role of dispositional affectivity as a determinant of job satisfaction. Dispositional affectivity is a personality variable, which has been conceptualised as a two-dimensional construct - positive affectivity and negative affectivity. Positive affectivity is understood as the individual's disposition to happiness while negative affectivity refers to an individual's predisposition to

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[64] Ibid., p. 344.

[65] S. Wyatt, J.N. Langdon, and F.G.L. Stock, Fatigue and Boredom in Repetitive Work Medical Research Council Industrial Health Board Report No. 77 (London: HMSO, 1937).

[66] M.A. McCrea, "Personality Hardiness and Work Satisfaction," in Nurses and Work Satisfaction: An Index for Measurement, P.L. Stamps 2nd ed., (Chicago, Illinois: Health Administration Press, 1997), p. 285.

[67] A. Agho, "The Moderating Effects of Dispositional Affectivity on Relationships Between Job Characteristics and Nurses' Job Satisfaction," p. 451-458.

discomfort. The results of this study revealed that positive affectivity and job characteristics, such as routinisation and instrumental communication (the degree to which information about a job is transmitted by an organisation to its employees), were major predictors of job satisfaction among nurses.

Another interesting aspect of these findings was that when nurses with high positive affectivity perceived high levels of participation, communication, cohesiveness within the work group and fairness, they reported a high level of job satisfaction. Conversely, when nurses with high negative affectivity perceived less promotional opportunity, they reported a low level of job satisfaction. In other words, these findings suggest that the extent to which these variables (participation, communication, etc.) affect job satisfaction may depend on the extent to which nurses are predisposed to be happy or predisposed to experience discomfort. While the author of this study reported that previous studies found similar findings, it should be noted that the sample of nurses surveyed for this particular study was 242, of which only 162 returned completed questionnaires.

2.4 Summary of Literature about Demographic and Personal Factors

More often than not, biographical factors have been included in studies of job satisfaction among nurses. While many of these studies include biographical factors for descriptive purposes, others do examine the relationship between these factors and job satisfaction. When the research however, is evaluated no clear picture emerges with regard to which of the biographical factors are strongly correlated with job satisfaction. For the most part, studies have shown small and inconsistent effects of variables such as age, gender, education and personality on job satisfaction. This does not mean that these factors are unimportant, but only that organisational factors are

more important than are biographical factors. In part this may be due to the fact that individuals choose jobs which are likely to produce some satisfaction, irrespective of their personal characteristics. It is clear from the research reviewed that further work remains to be done. For this reason the present study collected biographical data from subjects. While some of the data will be used to describe the sample, the present study will examine how biographical factors affect job satisfaction.

2.5 Organisational Climate

Ideally, the organisation should be a place where employees work together to achieve predetermined goals. This however, rarely happens for a sustained period of time.[68] Quite often a change or some conflict will arise, producing less than ideal conditions. In some instances the cause of this conflict may be due to ineffective leadership, change or interpersonal disagreement. The disruption caused by such conflict weakens the harmony that is so vital to the overall efficiency of the organisation. von Haller Gilmer & Deci[69] suggest that conflicts between individuals and employees are inevitable. Individuals, who are independent or self-directed, find that most organisations do not provide a suitable setting. These authors further suggest that to reduce conflict, the organisation must make available a climate that will allow the individual to "unfold and develop".[70] This means that it is important to examine the ways in which organisations and their departments operate. But how can this be done?

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[68] R.M. Hodgetts, and S. Altman, Organisational Behaviour (Philadelphia: W.B. Saunders Company, 1979), p. 343.

[69] B. von Haller Gilmer, and E.L. Deci, Industrial and Organisational Psychology 4th ed., (New York: McGraw-Hill Book Company, 1977), p. 170.

[70] Ibid., p. 170.

According to Ashkanasy *et al.*,[71] one way in which to address the above question is to examine the climate and culture of an organisation. This allows the researcher to include constructs such as "shared attitudes, values, and meanings". The next section offers a brief historical overview of the construct organisational climate.

2.6 Historical Overview of Organisational Climate

The study of organisational climate preceded that of organisational culture. According to Schneider[72]

> ....climate has a long history in the fields of industrial and organizational psychology and organisational behaviour. As such, it has experienced several reconceptualizations and empirical breakthroughs that are not yet characteristic of culture's development. In particular, the climate construct got off to a relatively quick empirical start. At the time of its major introduction in the late 1960s, climate researchers did not devote many years or many articles to haggling over definitions or elaborating all the possible nuances of climate. Rather, applied psychologists began gathering data and assessing the validity of the concept right from the start.[73]

Climate research derives from a combination of field theory and the quantitative study of attitudes within organisation. Field theory was developed by Lewin.[74] In brief, this theory proposes that human behaviour is the product of both the person and the environment. This means that a person's behaviour is related to both her or his personal characteristics and the social situation in which she or he finds themselves.

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[7] N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson, Handbook of Organisational Culture and Climate (Thousand Oaks, California: Sage Publications, 2000), p. 1-4.

[7] B. Schneider, Organisational Climate and Culture (San Francisco, CA: Jossey-Bass Publishers, 1990), p. 9-14.

[7] Ibid., p. 9, 14.

[7] K. Lewin, Field Theory in Social Science (New York: Harper & Row, 1951).

Lewin *et al.*[75] used the term "climate" to describe attitudes, feelings, and social processes that occurred among groups of boys at an American summer camp. These researchers were interested in the consequences of leader behaviour on the behaviour of boys in different groups. In their view, a climate context could be created through leadership. Democratic, autocratic, and laissez-faire styles of leadership were important not so much as behaviours per se, but as a means of producing a social situation or climate. When a leader created a climate context, certain activities, such as the leader's absence from a room, produced different effects depending on the type of climate created.

Leaders were trained to behave in democratic, authoritarian, and laissez-faire leadership styles. Lewin and his colleagues then observed the effects of these leadership styles on the boys. One of the main findings to emerge from this research was that boys exposed to democratic leadership displayed higher levels of cooperation, higher levels of participation in class work, and more openness toward the leader and each other, than did boys from the other leadership conditions.

It would appear then that Lippitt and his colleagues were among the first to make reference to the climate concept. Yet, these authors did not provide a definition or a measurement instrument of climate. In 1958 Argyris[76] wrote a paper on the climate of a bank and defined the term in a way that would be familiar to present-day researchers (that is, in terms of formal organisational policies, employee needs, values, and personalities that operate within a system). Argyris however, used the

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[75] K. Lewin, R. Lippitt, and R.K. White, "Patterns of Aggressive Behaviour in Experimentally Created "Social Climates," Journal of Social Psychology 10 (1939): p. 271-299.

[76] C. Argyris, "Some Problems in Conceptualising Organisational Climate: A Case Study of a Bank," Administrative Science Quarterly 2: 1 (1958): p. 501-520.

term climate in quotation marks and even used it interchangeably with *informal culture.*

On the other hand, McGregor[77] dedicated an entire chapter on Managerial Climate in his famous book, *The Human Side of Enterprise.* He conceptualised climate as the "....day by day behaviour of the immediate superior and of other significant people in the managerial organisation...."[78] McGregor believed that managers created the climate in which employees worked based on what they do, how they do it, and their competence and their ability to make things happen. He did not design any quantitative measures to assess his conceptualisation of climate.

One of the first papers to conceptualise and operationalise climate comprehensively was presented by Litwin and Stringer[79] at a research conference. These authors presented six organisational climate dimensions as reported by organisation members' perceptions. A version of this paper is presented in a book of collected papers from the conference on climate and is edited by Tagiuri and Letwin,[80] and explores the nature of the climate construct, its definition and the early empirical findings relating to it. So, even though the word "climate" appeared in much earlier research reports, for example in Lewin, Lippitt, & White[81] in 1939, the concept of "climate" as it is

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[77] D.M. McGregor, The Human Side of Enterprise (New York: McGraw-Hill, 1960).

[78] Ibid., p. 133.

[79] G.H. Litwin, and R. Stringer, "The Influence of Organisational Climate on Human Motivation." Paper Presented at a Conference on Organisational Climate, Foundation for Research on Human Behaviour, Ann Arbor, Mich., (1966), quoted in J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness. (New York: McGraw-Hill Book Company, 1970).

[80] R. Tagiuri, and G.H. Litwin, Organisational Climate: Explorations of a Concept (Cambridge, MA.: Division of Research, Graduate School of Business Administration: Harvard University, 1968).

[81] K. Lewin, R. Lippitt, and R.K. White, "Patterns of Aggressive Behaviour in Experimentally Created "Social Climates," p. 271-299.

known today, was not fully elucidated until thirty years later. By the 1970s there were several literature reviews and critiques of the climate construct and on how it was measured. One example is the work by Campbell *et al.*[82] who discussed climate under the broader heading of "situational determinants" or "environmental determinants". These authors reported that the small number of factors which describe climate would imply that "a great deal of environmental variation remains to be uncovered" and that "the tendency for researchers to cull items from the previous literature ...."[83] produces incomplete operationalisation of the concept.

2.7 Conceptual Considerations

The terms "organisational culture" and "organisational climate" are sometimes used interchangeably, yet there are important differences between them.[84] According to Bowditch & Buono[85] "organisational culture is concerned with the *nature* of beliefs and expectations about organisational life, while climate is an *indicator* of whether those beliefs and expectations are being fulfilled". Thus, if employees believe that their organisation rewards them for hard work then this organisation can be said to have a climate of generosity or fairness.[86] Schneider[87] argues that climate and culture are similar concepts but stops short of asserting that the two constructs are identical or

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[82] J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness (New York: McGraw-Hill Book Company, 1970).

[83] Ibid., p. 394.

[84] J.L. Bowditch, and A.F. Buono, A Primer on Organisational Behaviour Fourth Edition. (New York: John Wiley & Sons, Inc., 1997), p. 299.

[85] Ibid., p. 299.

[86] F.E. Saal, and P.A. Knight, P.A. Industrial/Organisational Psychology: Science and Practice 2nd ed., (California: Brooks/Cole Publishing Company 1995), p. 387.

[87] B. Schneider, Organisational Climate and Culture, p. 23-24.

almost identical. He believes that climate can be interpreted as a manifestation of culture. He views culture however, as "....a deeper, less consciously held set of meanings than most of what has been called organisational climate."[88] Huse & Bowditch[89] have argued that, however it is defined, climate is "....a systematic phenomenon that pervades an organisation and its parts." Furthermore, these authors suggest that climate is perceptual (it is an internal interpretation and representation of an external situation) and that this perceptual knowledge is usually gained by administering and scoring a questionnaire.

Just as people perceive their world in different ways, similarly they have different perceptions of the climate of their organisations. There has been some discussion about whether climate is descriptive or evaluative, but according to Schneider[90] it is both. For example, many researchers ask people to describe what occurs in their work environment rather than evaluate what they regard as good or bad. Climate is considered to be a perceptual measure and since perceptions can vary between members within an organisation, people are in fact evaluating rather than describing. Some writers use the term "organisational climate" to mean "situationally determined processes" where the climate variables can be either causative factors or moderators for performance and attitudes. Others use the term "psychological climate" as an individual's perception of a situation and there are others who use the terms interchangeably.[91]

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[88] Ibid., p. 24.

[89] E.F. Huse, and J.L. Bowditch, Behaviour in Organisations: A Systems Approach to Managing (Reading, Massachusetts: Addison-Wesley Publishing Company, 1977), p. 287.

[90] B. Schneider, "Organisational Climates: An Essay," Personnel Psychology 28 (1975): p. 447-480.

[91] B. von Haller Gilmer, and E.L. Deci, Industrial and Organisational Psychology,. p. 171.

2.8 Measures of Organisational Climate

In the organisational literature climate has been conceptualised in one of three ways: as an independent variable, as an intervening variable, or as a dependent variable. An independent variable is one that causes changes in the dependent variable and a change in the independent variable affects the dependent variable.[92,93] According to Huse & Bowditch[94] if climates are "manufactured" for particular organisational settings in order to determine outcomes then climate is regarded as an independent variable. For this research study specific climates will not be "manufactured" in order to investigate its relationship with nurses' job satisfaction. Data however, will be collected from respondents working in different organisations, so it is reasonable to assume that some variation in climate will exist. For this reason this researcher has decided to treat organisational climate as an independent variable.

Although the present research study is concerned with perceptual measures of organisational climate, a brief mention of objective measures is necessary. Objective measures are not dependent on individuals' perceptions of the various dimensions in the particular organisation. The variables that have been examined in objective measures of organisational climate would appear to be more diverse that those examined in perceptual measures. This may be partly due to the fact that researchers using objective measures pursue a micro-level strategy while researchers using perceptual climate measures follow a macro-level strategy.[95] While objective climate

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[92] S. Sarantakos, Social Research (Australia: Macmillan Education Australia PTY Ltd., 1993), p. 71.

[93] M. Denscombe, The Good Research Guide (Buckingham: Open University Press, 2000), p. 46.

[94] E.F. Huse, and J.L. Bowditch, Behaviour in Organisations: A Systems Approach to Managing, p. 288.

[95] D. Hellriegel, and J.W. Slocum, "Organisational Climate; Measures, Research and Contingencies," Academy of Management Journal 17 (1974): p. 255-280.

measures have strengths such as accuracy and reliability they also have limitations. Firstly, some of these instruments contain several variables, which are too specific to be easily interpreted.[96] A second limitation was noted by Forehand & Gilmer:[97]

> Studies that examine in isolation specific objective properties of an organisation leave unanswered the questions of how the properties are related to one another and how they are related to useful constructs of organisational functioning.[98]

According to Payne & Pugh,[99] few studies have examined the validity of climate measures by comparing objective and subjective measures. One reason for this is the high cost associated with collecting observational data from several organisations. Despite this, these authors reported that the few studies, that have been undertaken, would suggest that perceptual climate measures are valid and do correlate with objective non-perceptual climate measures. These results, however, may be limited to educational institutions.

2.8.1 Perceptual Measures of Organisational Climate

Most of the instruments used for assessing climate were developed for business organisations. There are, however, some exceptions to this statement. For example, Schneider and Bartlett[100] developed a measure for use in insurance agencies. Halpin

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[96] J.P. Campbell, M. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness (New York: McGraw-Hill, 1970).

[97] G. Forehand, and B. Gilmer, "Environmental Variation in Studies of Organisational Behaviour," Psychological Bulletin 22 (1964): p. 361-382.

[98] Ibid., p. 365.

[99] R. Payne, and D.S. Pugh, "Organisational Structure and Climate," in Handbook of Industrial and Organisational Psychology, ed. M.D. Dunnette (New York: John Weiley & Sons, 1983), p. 1142.

[100] B. Schneider, and C. Bartlett, "Individual Differences and Organisational Climate I: The Research Plan and Questionnaire Development," Personnel Psychology 21 (1968): p. 323-334.

& Croft's[101] measure was designed for use in schools. Campbell *et al.*[102] undertook a comparative analysis of climate instruments and concluded that each of the instruments analysed contained five or six factors, and that at least four appeared to be common across all instruments. The four recurring or common factors identified in the comparative analysis of climate instruments included were: (a) autonomy, (b) degree of structure imposed upon the position, (c) reward consideration, and (d) consideration, warmth and support. A review of climate instruments by Hellriegel & Slocum[103] found greater diversity than that reported by Campbell *et al.*[104] For example, these authors report that instruments developed by Halpin and Croft[105] and Dewhirst[106] are narrower in scope and cover fewer dimensions than some of the others they reviewed. Therefore, while Hellriegel & Slocum[107] agree with Campbell *et al.*[108] that common core dimensions would appear to be included in most of the climate instruments, there is also an increasing diversity.

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[101] A. Halpin, and D.B. Croft, The Organisational Climate of Schools (Chicago: University of Chicago, Midwest Administrative Centre, 1962).

[102] J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness, 1970.

[103] D. Hellriegel, and J.W. Slocum, "Organisational Climate: Measures, Research and Contingencies," p. 255-280.

[104] J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness.

[105] A. Halpin, and D.B. Croft, The Organisational Climate of Schools

[106] D. Dewhirst, "Impact of Organisational Climate on the Desire to Manage Among Engineers and Scientists," Personnel Journal 50: 000003 (1971): p. 196-203.

[107] D. Hellriegel, and J.W. Slocum, "Organisational Climate: Measures, Research and Contingencies," p. 255-280.

[108] J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness

The framework proposed by Leavitt[109] conceptualised organisations as consisting of task, structure, people, and technology dimensions. According to Hellriegel & Slocum,[110] such a framework is useful for considering the range of variables that should be captured in a climate instrument in order to determine an adequate understanding of an organisation's environment. According to these authors most of the climate instruments they reviewed generally include these three dimensions.

2.9 Organisational Climate as an Independent Variable

According to Hellriegel & Slocum[111] research would indicate that there is a relationship between climate and dependent measures of organisational effectiveness, such as performance and job satisfaction. In their study to explore the relationship between organisational climate and job satisfaction, Prtichard and Karasick[112] found significant correlations between job satisfaction and supportiveness, and concern for social relationships (aspects of organisational climate). They found, however, individual differences in the relationship between organisational climate and job satisfaction. For example, managers with high-autonomy were considerably more satisfied in climates low in decision centralisation.

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[109] H. Leavitt, "Applied Organisational Change in Industry: Structural, Technological, and Humanistic Approaches," in Handbook of Organisations, ed. J. March, (Chicago: Rand McNally, 1965).

[110] D. Hellriegel, and J.W. Slocum, "Organisational Climate: Measures, Research and Contingencies," p. 255-280.

[111] Ibid., p. 263.

[112] R.A. Pritchard, and B.W. Karasick, "The Effects of Organisational Climate on Managerial Job Performance and Job Satisfaction," Organisational Behaviour and Human Performance 9 (1973): p. 26-46.

Friedlander and Margulies[113] also examined the relationship between organisational climate and job satisfaction. These authors reported that satisfaction with task involvement was highest in climates high in management thrust (getting the organisation moving). Schneider and Snyder[114] also examined the relationship between organisational climate and job satisfaction and found differences for groups such as managers and secretaries. For example, the correlation between satisfaction and a climate of harmony was significant for managers but not for secretaries. The correlation between a climate of 'support' and satisfaction with supervisors was significant for trainees but not for managers.

Several studies have also reported a significant relationship between job performance and organisational climate. For example, Pritchard & Karasick[115] undertook a study to determine the effects of organisational climate on job performance and job satisfaction. One hypothesis proposed by these researchers was that "climate factors will relate more highly to managerial satisfaction than to managerial performance". This hypothesis was strongly confirmed. In attempting to explain this interesting finding, these authors stated that if an individual perceives a climate to be supportive, friendly, offers rewards to its employees, and encourages democratisation, then it is likely that job satisfaction will be present. If these values are not consistent with high performance (for example, if there is overemphasis on social relationships), then it is unlikely that both performance and satisfaction will be present.

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[113] F. Friedlander, and N. Margulies, "Multiple Inputs of Organisational Climate and Individual Value Systems Upon Job Satisfaction," Personnel Psychology 22 (1969): p. 171-83.

[114] B. Schneider, and R.A. Snyder, "Some Relationships Between Job Satisfaction and Organisational Climate," Journal of Applied Psychology 60 (1975): p. 318-28.

[115] Pritchard, R.D & Karasick, B.W. "The Effects of Organisational Climate on Managerial Job Performance and Job Satisfaction", p 126-146.

Friedlander and Greenberg[116] undertook a study to determine the effect of job attitudes, training, and organisational climate on the job performance and retention of the hard-core unemployed. These authors found that positive attitudes toward work were uncorrelated with higher job retention of job performance, and there was no indication that improved job attitudes (through social skill training programmes) would result in improved job performance or retention. Instead, the findings suggested that the work effectiveness and behaviour of this sample of unemployed people depended predominantly on the social climate in which the person works. Furthermore, it appeared that increasing the supportiveness of the work climate would seem to be a major factor for increasing the performance and retention among this sample.

2.10 Criticisms of the Climate Construct

In the literature of organisational psychology there has been a debate with regard to whether organisational climate and job satisfaction are one and the same. Johannesson[117] suggested that assessing the relationship between organisational climate and job satisfaction were, to a large extent, redundant. This stance is based on the assumption that the description of an environment or climate is affected by the satisfaction with the said environment. Johannesson puts forward two main reasons for his redundancy theory. The first is concerned with the scales used to construct climate instruments. These scales in his opinion were formed using items taken from

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[116] F. Friedlander, and S. Greenberg, "Effect of Job Attitudes, Training, and Organisation Climate on Performance of the Hard-Core Unemployed," Journal of Applied Psychology 55: 4 (1971): p. 287-295.

[117] R.E. Johannesson, "Some Problems in the Measurement of Organisational Climate," Organisational Behaviour and Human Performance, 10 (1973): p. 118-144.

pre-existing satisfaction measurement tools. Secondly, he points out that the method used to measure climate may be faulty.

Others have supported these limitations of climate instruments but have identified additional explanations for the redundancy. For example, Guion[118] not only recognised the problems associated with measurement instruments but also suggested that there is confusion regarding exactly who or what is under investigation. He attributes this problem to poor definition of the climate construct. In a similar vein, Schneider views questionnaire construction and the unit of analysis used in most research as contributing to the confusion between climate and satisfaction. He argues that if climate is regarded as the property of the organisation, then the individual is not the appropriate unit of analysis. Schneider argues that most climate research has involved only one organisation. Therefore, the results of such studies are the collective perceptions of a group of individuals about the climate of one organisation. Schneider believes that such a technique is unsuitable for measuring an organisational trait. Instead, he suggests sampling a number of organisations in the same business.

Despite these criticisms several authors have refuted the redundancy theory between organisational climate and job satisfaction. Downey *et al.*[119] conducted a study whose main objective was to consider whether climate and job satisfaction are one and the same. Their results did not support the redundancy theory. LaFollette & Sims[120]

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[118] R.M. Guion, "A Note on Organisational Climate," Organisational Behaviour and Human Performance 9 (1973): p. 120-125.

[119] H.K. Downey, D. Hellriegel, M. Phelps, and J.W. Slucom, "Organisational Climate and Job Satisfaction: A Comparative Analysis," Journal of Business Research 2: 3 (1974): p. 233-248.

[120] W.R. LaFollette, and H.P. Sims, "Is Satisfaction Redundant with Organisational Climate?" Organisational Behaviour & Human Performance 13 (1975): p. 257-278.

designed a study to investigate whether organisational climate is redundant with job satisfaction. To do this the authors surveyed employees and their supervisors.

The employees were asked to complete a questionnaire booklet which included the organisational climate instrument, the organisational practices instrument and the job satisfaction instrument. Two weeks later the supervisors were asked to rate the job performance of the employees using a specially designed measure. These authors found that job performance was highly related to 33% of the climate factors and to 21% of the practice factors, but job performance is significantly related to 100% of the job satisfaction scales. LaFollette & Sims then pointed out that if these measures were redundant it would be unlikely that the relationships between job performance and the other constructs would vary so dramatically. The authors conclude "if these measures were, in fact, redundant, one would expect virtually equal correlations across the board."[121]

Another study to reject the redundancy theory is that of Schneider and Snyder.[122] These researchers undertook a study to investigate the relationships between job satisfaction and organisational climate. They used a sample of 522 employees from 50 life insurance agencies. The results indicated that (a) perceptions of climate and satisfaction were more highly correlated among respondents in similar positions than for respondents in other positions, (b) respondents, when grouped by position level within an organisation were more likely to agree on the climate of their organisation than they did on their level of satisfaction, (c) neither satisfaction nor climate

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[121] Ibid., p. 274.

[122] B. Schneider, and R.A. Snyder, "Some Relationships Between Job Satisfaction and Organisational Climate," p. 318-328.

perceptions were strongly correlated with production, and (d) there was a correlation between satisfaction and turnover but not between climate and turnover. These researchers stated that "although the question of the possible overlap of the concepts and empirical domains of organisational climate and job satisfaction could hardly be considered definitively answered as a result of this study, these data do provide some support for the assertion that responses to a climate measure reflect aspects of the work world which are not reflected by the responses to two measures of satisfaction."[123] In conclusion Schneider and Snyder suggest that based on the findings from their study they would have to disagree with researchers who have suggested that climate research "may be no more than the reinvention of the satisfaction wheel".[124]

From this discussion, it is clear that researchers are still left with a problem. It is evident from the literature that there is a correlation between organisational climate and job satisfaction. Thus, whether one accepts the redundancy assumption or the causal assumption depends largely on a subjective judgement. In the final analysis, the issue of redundancy can only be resolved through further research that utilises designs that involve longitudinal and causal analysis. LaFollette and Sims believe that a conclusion that supports redundancy between organisational climate and job satisfaction "is premature and judgemental, and is contrary to the prevailing evidence to date."[125]

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[123] Ibid., p. 326.

[124] Ibid., p. 327.

[125] W.R. LaFollette, and H.P. Sims, "Is Satisfaction Redundant with Organisational Climate?" p. 276.

While there is a plethora of research on job satisfaction in the literature on nursing, the opposite is true of research examining the climate of health care organisations. Moreover, there is a dearth of research investigating the relationship between organisational climate and job satisfaction among nurses. Consequently, there is a lack of debate regarding climate within the literature on nursing. The few studies that were found will be discussed in section 2.19 of this chapter.

2.11 Summary of Literature on Organisational Climate

Section 2.7 summarised the literature about organisational climate. It began by giving a brief historical overview of the climate construct, which can be traced to the work of Lewin and his colleagues. The section then went on to address conceptual issues. It would appear that the terms climate and culture are sometimes used interchangeably but there are differences between the two. Much of the material that follows addresses the measurement of climate. In the organisational literature it would appear that climate is measured in one of three ways: as an independent variable, as an intervening variable, or as a dependent variable.

In the present research study, organisational climate was measured as an independent variable. Although the reader was informed about subjective and objective measures of climate, greater emphasis was placed on perceptual measures, as this was the method used for analysing climate in the present study. During the 1960s and 70s, organisational researchers showed an increased interest in both the organisational climate construct and its measurement. This interest was stimulated by the possibility that organisational climate may have a powerful influence on variables such as satisfaction, performance and turnover. In concluding this section, it is important to draw the reader's attention to some of the criticisms about the climate construct

reported in the literature and to summarise some of the research studies undertaken to refute these criticisms. The section concluded by reiterating the lack of research investigating the climate of health care organisations in the literature on nursing and consequently the lack of debate surrounding the issue.

2.12 Literature About the Dependent Variable (Job Satisfaction)

As indicated in the introduction to this chapter there is a vast literature on job satisfaction. This makes any attempt to provide a review an arduous undertaking. At best, all that is possible in a single review is to provide a sample of the literature.

In the literature on nursing, most of the studies conceptualise job satisfaction as a dependent or outcome variable. Within this conceptualisation, two categorisations are made. The first includes those studies that treat job satisfaction as an outcome of a particular type of job. Most of these studies are descriptive in nature. Those that are not descriptive normally evaluate a particular type of innovation. The second category refers to those studies that regard job satisfaction as an outcome of organisational factors. Both of these categories of studies will be addressed in this section. Before doing so however, it is important to discuss the concept of job satisfaction, historical overview of job satisfaction and the measurement of job satisfaction.

2.13 Conceptual Considerations

One of the first considerations when dealing with job satisfaction is to establish what it is. Job satisfaction is an attitude. Therefore it is an hypothetical construct – it cannot be seen yet its presence or absence is thought to be associated with certain

behaviour patterns[126]. Several definitions of job satisfaction exist and although there is no one agreed definition, two major approaches appear to predominate in the literature. The first approach uses a "macro or global perspective" and focuses on general feelings about a job.[127] This approach is used when the purpose of the research is to evaluate overall job satisfaction. For example, a researcher may wish to examine the effects of people liking or disliking their jobs.

The second approach is concerned with job facets. In this approach, the researcher is trying to establish the extent to which an individual is satisfied with different aspects or facets of their job. The facet approach is capable of providing a more complete view of a person's job satisfaction than the global approach, because it can identify which parts of the job produce satisfaction or dissatisfaction. Given this capability, the facet approach can be useful to organisations that wish to improve those factors that produce job dissatisfaction. The present study investigated job satisfaction using the facet approach. Therefore, it was important to select a definition that reflected the job facet approach. In the opinion of this researcher, the definition offered by Spector fulfils this criterion. This definition is:

> Job satisfaction is simply how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs.[128]

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[126] L.N. Jewell, L.N. Contemporary Industrial/Organisational Psychology 3rd ed., (Pacific Grove, California: Brooks/Cole Publishing Company, 1998), p. 211.

[127] S. Jayaratne, "The Antecedents, Consequences, and Correlates of Job Satisfaction," in. Handbook of Organisational Behaviour, ed. R.T. Golembiewski, p. 111-140.

[128] P.E. Spector, Job Satisfaction: Application, Assessment, Causes and Consequences, p. 2.

2.14 Historical Overview of Job Satisfaction

The fragmented nature of work has been of concern since the industrial revolution, which saw the demise of craftsmanship and the introduction of machines. Karl Marx was one of those who suggested that fragmented work produced lack of fulfilment and feelings of misery rather than enjoyment. Despite such views industrial psychologists of the day were more concerned with productivity than the psychological welfare of employees. Foremost in this tradition was Frederick Taylor.[129] His study designed to increase productivity involved the redesigning of equipment and the selection of suitable employees. Taylor was able to demonstrate a dramatic increase in production. Changes in job satisfaction however, rarely show changes in production in as dramatic a way as demonstrated by Taylor.

The next research project of historical importance was the *Hawthorne Studies* directed by Elton Mayo[130] at the Hawthorne plant of the Western Electric Company. The purpose of this study was to determine the level of illumination at which employees were most productive and efficient. The results indicated that changes in illumination resulted in increased productivity, regardless of the direction of the change in illumination. In fact, in one experiment production increased even when illumination was reduced to the level of moonlight. These results left the Hawthorne researchers puzzled and prompted them to undertake other studies to examine why productivity should increase despite deteriorating physical conditions. Although the *Hawthorne Studies* have been criticized for poor experimental design and inaccurate reporting, they remain one of the most important research studies because this work led to the

[129] F.W. Taylor, The Principles of Scientific Management (New York: Harper, 1911).

[130] Mayo, Elton The Social Problems of an Industrial Civilisation (Cambridge: Harvard University Press, 1945).

"Human Relations" school of thought in organisational psychology, which emphasised that human relationships in organisations are crucial to job satisfaction. Human relationships refer to supervisory behaviour and the work group within organisations.[131]

Robert Hoppock[132] conducted one of the earliest influential research studies on job satisfaction since the Hawthorne research project. His samples included most employed adults in a small town and 500 schoolteachers from several communities. Hoppock's results emphasised that multiple factors could affect job satisfaction. His approach has been regarded as the traditional approach to job satisfaction in that, if a variable within the work environment leads to satisfaction, then the absence of such a variable will result in job dissatisfaction and vice versa.

The publication of a monograph in 1959, by Herzberg, Mausner, and Snyderman,[133] saw the beginning of a new trend which was to refocus attention on work itself. The traditional view that job satisfaction and dissatisfaction lay along a single continuum as proposed by Hoppock was severely criticised by Herzberg in 1959. Herzberg *et al.* argued that the factors that produced job satisfaction were different to those that produced dissatisfaction. Factors associated with the need for psychological growth contribute to job satisfaction. Such factors include achievement, recognition and the intrinsic interest of the work itself. Conversely, factors associated with the context of

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[131] F.E. Saal, and P.A. Knight, Industrial/Organisational Psychology: Science and Practice, p. 278-283.

[132] E.A. Locke, "The Nature and Causes of Job Satisfaction," in Handbook of Industrial and Organisational Psychology, ed. M.A. Dunnette (New York: John Wiley & Sons, 1983), p. 1297-1300.

[133] F. Herzberg, B. Mausner, and B.B. Snyderman, The Motivation to Work (New York: Wiley, 1959).

the job such as pay, supervision and physical working conditions, when absent lead to job dissatisfaction.

In summary, three major historical trends or schools of thought were identified concerning the factors regarded to be most conducive to job satisfaction. The Scientific or Physical-economic School stressed the physical arrangement of the work, physical working conditions and pay. The Human Relations School stressed the importance of cohesive work groups, good supervision, and friendly employee management. The third historical trend was known as the Work Itself School. This trend emphasised the attainment of job satisfaction by increasing responsibility and discretion to enable employees to develop mentally. Today, it is generally accepted that multiple factors, including the nature of the job or job content, social relationships, supervisory behaviour and pay, all contribute to job satisfaction. In addition, it is important to remember that job satisfaction should not be generalised without accounting for the personal characteristics of the individual.

2.15 The Assessment of Job Satisfaction

Based on this discussion, it is reasonable to suggest that job satisfaction involves multiple factors, including the dimensions of the work environment or job context, the nature of the work or job content, social relationships with people at work, individual personal characteristics and how people in the wider world may view a specific job or occupation. In addition, it is important to remember that these factors may be culture specific, gender specific and different across occupations. Therefore, the creation of a generic measure of job satisfaction presents a formidable, if not impossible task.

As discussed earlier, job satisfaction is defined using one of two major approaches. These are the macro or global approach and the job facets approach. Similarly, it would appear that most instruments used for assessing job satisfaction fit into the same categorisation.[134] The global approach summarises all the liked or disliked aspects of a job. Some of these instruments consist of multiple items, others of a single item. The following question is an example of a single item measure: Taking into consideration all the things about your job, how satisfied or dissatisfied are you with it? The single item questionnaire has advantages and disadvantages. No costs are incurred in their development, and they are quick and easy to administer and score. Subjects find them easy to use because they are requested to combine aspects of their jobs in a way that they would normally think about them. Despite these advantages, however, the single item measure lends itself to individual interpretation of the question. Some subjects may construct their response on the basis of pay, others on the nature of the work, and some on the basis of the climate within the organisation.

The faceted approach to measuring job satisfaction is based on the assumption that employee satisfaction with different facets of a job can vary, and therefore should be measured separately. Satisfaction with different facets or aspects of a job determines the overall satisfaction. Using the facet approach requires not only identifying components or facets of the job, but also establishing the degree of satisfaction with each facet. One advantage of this approach is that it takes into account that differences exist between individuals with regard to which factors are satisfying and

[134] L.N. Jewell, Contemporary Industrial/Organisational Psychology, p. 211-215.

dissatisfying. A major disadvantage to using this approach is that it predefines for the subjects a set of job facets.[135]

Although interviews are used in some cases, most research studies tend to use self-report methods of measurement in job satisfaction.[136] This may be due to the fact that interviews are expensive and time consuming to undertake. Moreover, it is easy to standardise and quantify responses from a questionnaire. Some authors have assessed job satisfaction using procedures other than interview and questionnaire. Spector *et al.*[137] asked supervisors to estimate the job satisfaction of their subordinates. The correlation between supervisors' estimate and subordinates' perceptions was .54 suggesting that the supervisors were aware of subordinates' feelings toward their jobs. Spector[138] suggests several advantages to using an existing instrument for examining job satisfaction and these will be discussed further in Chapter Four. The paragraphs below summarise the literature about two main issues: studies that conceptualise job satisfaction as an outcome of a specific job, and studies that view job satisfaction as an outcome of organisational factors.

2.16 Job Satisfaction as an Outcome of a Specific job

The literature in nursing from the 1980s suggests that the main purpose of research at that time was to describe the level of satisfaction among nurses. The majority of these studies were located in hospitals, which is not surprising since the majority of nurses

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[135] S. Jayaratne, "The Antecedents, Consequences, and Correlates of Job Satisfaction," p. 114-116.

[136] P.E. Spector, Job Satisfaction: Application, Assessment, Causes and Consequences, p. 5.

[137] P.E. Spector, D.J. Dwyer, and S.M. Jex, "Relation of Job Stressors to Affective, Health, and Performance Outcomes: A Comparison of Multiple Data Sources," Journal of Applied Psychology 73: (1988): p. 11-19.

[138] P.E. Spector, Job Satisfaction: Application, Assessment, Causes and Consequences, p. 6.

work in the hospital setting. Another interesting feature of these studies is that, while a few included all nursing staff, the majority focused on job satisfaction among registered nurses only. According to Stamps,[139] research studies that focus on different types of nursing jobs contribute to a greater understanding about that particular aspect of the nurse's job.

2.16.1 Specific Types of Nursing Jobs

One area that has been regularly researched is critical care nursing, with a particular emphasis on comparing satisfaction levels between nurses working in critical care and other specialities. The results, however, are not consistent. In a study to compare job satisfaction between registered nurses working in critical care units and those working in medical and surgical units, Williams[140] found that there were no significant differences in job satisfaction between nurses working in critical care units and those working in medical and surgical units. Another interesting finding of this study was that neither of these two groups of nurses were highly satisfied with their jobs. The sample used in Williams's[141] study was very small (N= 37) and this may have affected the overall findings. Baggs & Ryan[142] explored the relationship between nurse-physician collaboration and nursing satisfaction. Their first hypothesis that "ICU nurses who practice more collaboratively are more satisfied with their jobs" was not supported by the findings. There were no significant correlations between the general measure of collaborative practice and the general job satisfaction measure.

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[139] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p 37.

[140] C. Williams, "Job Satisfaction: Comparing Coronary Care and Medical/Surgical Nurses," p. 104A-104H.

[141] Ibid., p. 104D.

[142] J.G. Baggs, and S.A. "ICU Nurse-Physician Collaboration and Nursing Satisfaction," p. 386-392.

The second hypothesis that "When ICU nurses perceive the decision-making process associated with patient transfer to be more collaborative, they are more satisfied" was supported. These findings, however, cannot be generalised because the sample was quite small (N= 68) and was recruited from a single medical centre.

Other studies have concentrated on examining the effects of interventions or innovations that are designed to improve a specific job. Some of the studies in this category have examined the effect of different types of recognition programmes on job satisfaction. Examples include studies undertaken by Goode & Blegen[143] and Goode, Ibarra & Blegen.[144] Other interventions considered to have an effect on job satisfaction are nursing care delivery systems. Often, such research studies utilise a pre- and post-test design in order to evaluate the innovation. An example of such a study is the one undertaken by Blenkarn, D'Amico and Virtue.[145] This study set out to investigate how a primary nursing care delivery system would influence staff nurses' perceptions of their job satisfaction. A pre- and post-test design was used and two units in the hospital participated. The findings revealed that although job satisfaction increased in both units, the increase was statistically significant only on one unit. Another interesting finding of this study was that in the unit with higher job satisfaction, the nurses worked eight-hour shifts while those in the unit with lower levels of job satisfaction worked twelve-hour shifts. One explanation offered by the authors for this was that nurses working twelve-hour shifts had more days off, which

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[143] C.J. Goode, and M.A. Blegen, "Development and Evaluation of a Research-Based Management Intervention," Journal of Nursing Administration 23 (1992): p. 61-66.

[144] C.J. Goode, U. Ibarra, M.A. Blegen, J. Anderson-Bruner, T. Boshart-Yoder, E. Cram, L. Finn, R. Mills, and C. Winty, "What Kind of Recognition Do Staff Nurses Want?" American Journal of Nursing 7 (1993): p. 64-68.

[145] H. Blenkarn, M. D'Amico, and E. Virtue, "Primary Nursing and Job Satisfaction," Nursing Management 19 (1988): p. 41-42.

meant that they were unable to give direct care to their patients for longer periods than their counterparts working eight-hour shifts.

In 1999, Kangas, *et al.*[146] undertook a study to identify differences and relationships among variables such as job satisfaction of nurses, patient satisfaction with nursing care, nursing care delivery models, organisational structure, organisational culture, and general background and demographic information. The findings revealed no differences in job satisfaction scores among nurses using different nursing care delivery models. These authors also reported that this was an unexpected finding as previous studies had demonstrated that care delivery models such as primary nursing and case management contributed to an increased level of job satisfaction among nurses. In attempting to explain the reason for this finding, the authors suggested that "although care delivery models theoretically are distinct, perhaps the realities of clinical practice mute any real differences and thus negate differential effects on job satisfaction."[147]

2.16.2 Autonomy

Increased autonomy for staff nurses would appear to be an important goal within the nursing profession. In a meta-analysis undertaken by Blegen,[148] autonomy was one of thirteen variables included in quantitative studies that examined job satisfaction among nurses. Only a moderate relationship, however, was found between autonomy and job satisfaction. This is rather a surprising finding since the relationship between

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[146] S. Kangas, C.C. Kee, and R. McKee-Waddle, "Organisational Factors, Nurses' Job Satisfaction, and Patient Satisfaction with Nursing Care," Journal of Nursing Administration 29 (1999): p. 32-42.

[147] Ibid., p.

[148] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

autonomy and job satisfaction is regarded as being so strong that some researchers have actually used the notion of autonomy as a substitute for that of job satisfaction. For example, Schutzenhofer and Musser[149] used a "professional activities scale" (that measures perception of autonomy) to measure actual level of satisfaction.

McCloskey[150] undertook a study to examine the relationship between autonomy and social integration and their effects on nurses' job satisfaction, commitment, work motivation and intent to stay on the job. Autonomy was measured using the autonomy sub-scale of the *Job Characteristics* Inventory. This sub-scale consisted of six items that measured the extent to which employees acted independently of a supervisor. The results from this study indicated that both autonomy and social integration (the degree of level of supportive relationships with co-workers) are important job concepts for nurses. When both autonomy and social integration were perceived to be low, the nurses also reported low job satisfaction and work motivation, poor commitment to the organisation and less intent to stay on the job. Another interesting finding was that above average levels of one of the variables (either autonomy or social integration) would appear to buffer the bad effects of lower than average amounts of the other. This means that if a nurse had high levels of autonomy only, or high levels of social integration only, the effect on job satisfaction, commitment, motivation and intent to stay in the job were not as high as those nurses who reported high levels of both autonomy and social integration. In addition, it would appear that when nurses scored above average levels in one of the variables

[149] K.K. Schutzenhofer, and D.B. Musser, "Nurse Characteristics and Professional Autonomy," p. 201-205.

[150] J.C. McCloskey, "Two Requirements for Job Contentment: Autonomy and Social Integration," p. 140-43.

(either autonomy or social integration) they were more likely to have some degree of job satisfaction, commitment, motivation and intent to stay, than their counterparts who scored low levels in both autonomy and social integration.

Other research studies measure both job satisfaction and autonomy. In 1992, Tumulty[151] undertook a study to develop and test a model that could be used for nursing role redesign. The major thrust of role redesign is to create roles that increase job satisfaction and performance. Three role components have been identified as the best predictors of job satisfaction and performance of nurses. These are autonomy, role stress, and feedback. The results of this study revealed that there was a significant relationship between role characteristics and head nurse job satisfaction. For example, autonomy was positively related to head nurse job satisfaction ($r = .51$). Job satisfaction, however, was negatively related to measures of role stress ($r = .59$). There was a strong positive relationship between feedback and job satisfaction ($r = .64$). In addition, there was a significant relationship between role characteristics and unit outcomes. For example, there was a positive relationship between head nurse autonomy and registered nurse retention and between autonomy and patient satisfaction. In conclusion, Tumulty[152] suggests that changes in the head nurse role could improve job satisfaction, and that improved role and increased job satisfaction could lead to improved performance in terms of retention of nurses, patient satisfaction and quality of care.

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[151] G. Tumulty, "Head Nurse Role Redesign: Improving Satisfaction and Performance," Journal of Nursing Administration 22 (1992): p. 41-48.

[152] Ibid., p. 47.

In a study to explore the importance of groups of independent variables as predictors of individuals' job satisfaction, Weisman *et al.*[153] found that perceptions of autonomy and frequency of delegation of inappropriate tasks by physicians are consistently significant predictors of job satisfaction. Autonomy emerged as either the strongest or second strongest predictor. The authors further stated that "nurses in the present study were found to be more satisfied with their jobs if they perceived that they control their work through independent decisions and that physicians do not delegate inappropriate tasks to them."[154] The authors of this study conclude that such perceptions would appear to be essential to satisfaction among staff nurses.

In a survey to explore the factors accounting for differences in the achievement patterns of professional nurses, Seymour and Buscherhof[155] reported that respondents expressed dissatisfaction with "not having a say" in matters relating to their work, not being allowed to make decisions regarding patient care and not being given the opportunity to plan, redesign or be innovative in their area of competence. Some of the barriers to professional autonomy identified in this study include hospital administrators, boards of nursing, regulatory restraints, the medical profession, and the nursing hierarchy. These authors conclude that lack of professional autonomy was more often cited as a reason for moving from hospitals (where lack of autonomy was perceived to be greatest) into other areas of practice rather than for leaving nursing altogether.

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[153] C.S. Weisman, C.S. Alexander, and G.A. Chase, "Job Satisfaction Among Hospital Nurses: A Longitudinal Study," p. 341-364.

[154] Ibid., p. 360.

[155] E. Seymour, and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing: Findings from a National Sample," p. 109-124.

Tovey and Adams[156] undertook a study to determine sources of job satisfaction experienced by nurses in acute NHS hospital wards. An important feature of this study was that content analysis was used to identify the component parts of nurses' job satisfaction and dissatisfaction. The categories that emerged were job content, resource issues, professional concerns, professional working relationships, emotional reactions to nursing, and external pressures. While these categories are similar to the components contained in some of the existing job satisfaction measurement tools, used in quantitative studies, the authors reported a noticeable absence of comments about clinical and managerial autonomy[157]. These authors offered two explanations for this finding. The first is that it is possible that concerns about autonomy are included in the comments made by respondents about job content and resource constraints. Alternatively, it is possible that the respondents in this study had lower expectations of working autonomously.

In a study to determine staff nurses' views of job satisfaction and dissatisfaction, McNeese-Smith[158] reported that professionalism emerged as a category under job satisfaction. "Opportunities for independent thinking" was one of five themes that were grouped under professionalism. Respondents described the ability of nurses to function independently as being important to job satisfaction. It would appear that most studies that include autonomy as a variable report some effect on job satisfaction. The empirical evidence, however, would suggest that autonomy is not

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[156] E.J. Tovey, and A.E. Adams, "The Changing Nature of Nurses' Job Satisfaction: An Exploration of Sources of Satisfaction in the 1990s," Journal of Advanced Nursing 30 (1999): p. 150-158.

[157] Ibid., p. 158.

[158] D.K. McNeese-Smith, "A Content Analysis of Staff Nurse Descriptions of Job Satisfaction and Dissatisfaction," p. 1332-1341.

the most important determinant of job satisfaction. One possible explanation is that nurses have become accustomed to working in an environment where there is limited autonomy, and that this results in lower expectations of working autonomously.[159,160]

2.16.3 Pay

Pay is one of the most important aspects of job satisfaction. Yet the research findings on the importance of the relationship between these two variables are conflicting.[161,162] In a study to determine the sources of satisfaction and dissatisfaction in nursing, Seymour & Buscherhof[163] reported that dissatisfaction with remuneration ranked second when compared with all other sources of dissatisfaction. Most of the comments from respondents (66.2%) suggested that nurses are inadequately compensated for "their qualifications, specialist skills, level of responsibility or workload, long and unsociable hours under difficult working conditions, the health risks of their work, and its intrusion into their private lives."[164] Examples of comments from respondents in Seymour & Buscherhof's[165] study include the following:

> I have at this time, chosen to leave nursing and pursue another field of study which I find compensates those for their professional abilities. I find it an insult to be in a profession that

[159] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 40.

[160] E.J. Tovey, and A.E. Adams, A.E. "The Changing Nature of Nurses' Job Satisfaction: An Exploration of Sources of Satisfaction in the 1990s," p. 150-158.

[161] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 40.

[162] M.M. Gruneberg, Understanding Job Satisfaction, p. 56.

[163] E. Seymour, and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing: Findings from a National Sample," p. 109-124.

[164] Ibid., p. 117.

[165] Ibid.

> demands the responsibilities and expertise that nursing demands, and yet pays a salary that is less than a non-educated labourer.[166]
> I feel I have worked very hard in school (RN, MSN). I have worked hard on the job. If I had worked as hard in another field, I would be receiving greater rewards, both financially and mentally, with my career satisfaction. The question before us is why will bright, talented people continue to enter a profession with so little to offer?[167]

Tovey and Adams[168] undertook a study to determine the major sources of satisfaction and dissatisfaction experienced by acute ward nurses in the English National Health Service (NHS) in the early 1990s. These researchers reported that nurses were dissatisfied with their pay but point out that it is possible that these findings may be a localised phenomenon. While Tovey and Adams[169] acknowledge that more data are required to verify these findings, they nevertheless believe that they are consistent with their expectations that variability in nurses' job satisfaction is due to the variable work environments within NHS Trust hospitals. Another interesting observation made by these researchers is that dissatisfaction with pay occurred even though some Trusts were engaged in local pay bargaining.

Witt *et al.*[170] undertook a study to examine the impact participation in decision-making (PDM) had on the relationship between perceptions of organisational politics and expressions of job satisfaction among public sector employees. These researchers reported a weak relationship between pay and participation in decision-making (PDM), politics and job satisfaction scores. An important feature of this study is that non-response bias was assessed by comparing the demographic characteristics of the

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[166] Ibid.

[167] Ibid.

[168] E.J. Tovey, and A.E. Adams, "The Changing Nature of Nurses' Job Satisfaction: An Exploration of Sources of Satisfaction in the 1990s," p. 150-158.

[169] Ibid.

[170] L.A. Witt, M.C. Andrews, and K.M. Kacmar, " Relationship Between Decision-Making and Job Satisfaction," p. 341-358.

population with that of the sample. Comparisons revealed that the sample represented adequately the population on sex, minority status, and age. In a content analysis of staff nurse descriptions of job satisfaction and dissatisfaction, McNeese-Smith[171] stated that the sample of nurses she studied only briefly mentioned salary in relation to job satisfaction. One nurse stated "I like my salary" and another indicated that salary, pay raises and time off were important to job satisfaction. Despite this, however, salary and benefits were one of several categories that emerged as relevant to job satisfaction. Limitations of this study include the small sample size of 30 nurses and the fact that the sample was recruited from only one hospital.

Despite these findings, not all studies report pay as an important determinant of job satisfaction. deSavorgnani *et al.*[172] reported high levels of satisfaction despite low pay levels among home care nurses. In a study to explore the importance of several types of independent variables as determinants of job satisfaction among nurses, Weisman *et al.*[173] found that job attributes were the least important category of predictors of nurses' job satisfaction. Notably, neither salary, overtime work, nor type of shift predicted job satisfaction. These authors, however, pointed out that since the sample consisted of only full-time registered nurses from one metropolitan area, variation in certain job attributes (e.g. hours, salary) were limited. Therefore, job attributes, though of negligible importance in this study, might demonstrate greater

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[171] D.K. McNeese-Smith, "A Content Analysis of Staff Nurse Descriptions of Job Satisfaction and Dissatisfaction," p. 1332-1341.

[172] A.A. deSavorgnani, R.C. Haring, and S. Galloway, "Recruiting and Retaining Registered Nurses in Home Health Care," Journal of Nursing Administration 23 (1993): p. 42-46.

[173] C.S. Weisman, C.S. Alexander, and G.A. Chase, "Job Satisfaction Among Hospital Nurses: A Longitudinal Study," p. 341-364.

importance in a more diverse sample. Blegen's[174] meta-analysis of nurses' job satisfaction did not include pay as a variable, because it did not appear often enough in the literature she reviewed. Gruneberg[175] suggests that:

> Money seems to be so central to our thinking in relation to our jobs that it leads one to be suspicious about research findings which report money as being of relatively low importance.[176]

One reason suggested by Gruneberg[177] for the difference between actual and reported importance of money may well be due to people modifying their responses to questionnaires. For example, many people may not think it appropriate to disclose that their main reason for working is financial rather than the intrinsic interest of the job. Indeed, this might well explain why in some studies pay is not reported as important to job satisfaction. This argument is interesting especially since nursing is regarded as a profession with a caring self-image[178] and therefore many nurses may feel that to report the importance of money would be in direct conflict with this self-image.

2.17 Job Satisfaction as an Outcome of Organisational Factors

The previous section of this literature review focused on job satisfaction as an outcome of a specific job. This section discusses those studies that view job satisfaction as an outcome of organisational factors. Deciding which studies to

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[174] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[175] M.M. Gruneberg, Understanding Job Satisfaction, p. 56-57.

[176] Ibid.

[177] Ibid., p. 57.

[178] J.E. Martin, and A.L. Bedimo, "Nurse Practitioner, Nurse Midwife and Physician Assistant Attitudes and Care Practices Related to Persons with HIV?AIDS," Journal of the American Academy of Nurse Practitioners 12: 2 (2000): p. 35-41.

include in this section was not easy. For example, if a research study focuses mainly on the effect of a specific job or the effect of a particular department with no attention to the larger organisation, it is grouped with studies that treat job satisfaction as an outcome of a specific job. For example, consideration of autonomy was included in the previous section because most of the research undertaken examined how a particular job can be changed to increase the autonomy of the nurse, rather than how nurses can have greater autonomy within the organisation itself.[179] To be included in this section, the organisation must be the unit of analysis, not the nurse, the job, or the department or unit.

2.17.1 Delivery of Nursing Care

It would appear from the literature that changes in how nursing care is delivered has been the focus of many research studies. Care delivery systems that involve primary nursing usually results in an increase in work satisfaction.[180,181] Kramer and Schmalenberg[182] undertook a study of a magnet hospital[183] [184]in order to determine those variables in the hospital and the nursing service that were responsible for

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[179] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 42.

[180] H. Blenkarn, M. D'Amico, and E. Virtue, "Primary Nursing and Job Satisfaction," p. 41-42.

[181] A.W. Lancero, and R.M. Gerber, "Comparing Work Satisfaction in Two Case Management Models," Nursing Management 26 (1995): p. 45-48.

[182] M. Kramer, and C. Schmalenberg, "Learning from Success: Autonomy and Empowerment," p. 58-64.

[183] Magnet Hospital – During the national nursing shortage in the 1980s in USA, a group of hospitals had no difficulty in attracting and retaining nurses at a time when other institutions were unable to do so. These hospitals were designated "magnets" because of their ability to attract and retain nurses successfully. Research to identify the characteristics of magnet hospitals was undertaken and the findings were presented under three major headings: (a) leadership attributes of nursing administrators, (b) professional attributes of staff nurses and (c) the type of environment that supported professional practice. (Scott and Sochalski, 1999)

[184] J.G. Scott, and J. Sochalski, "Review of Magnet Hospital Research: Findings and Implications for Professional Nursing Practice," Journal of Nursing Administration 29: 1 (1999): p. 9-19.

attracting and retaining nurses. This was achieved by interviewing chief nurse executives (CNE) and staff nurses in a magnet hospital. A series of follow-up studies on a random sample of 41 magnet hospitals was then undertaken. By observing and interviewing nurses on every shift on every unit in the sample of hospitals, these authors were able to construct not only a list of variables important to magnet hospitals but also descriptions of a culture of excellence.

An important finding reported by Kramer and Schmalenberg[185] was that the factors used to evaluate a nursing department for its "magnetism" and culture of excellence change over time. Therefore, the criteria must be updated regularly. For example, the original magnet hospital study indicated that the practice of primary nursing as a nursing care delivery system is an essential factor or variable within a magnet hospital. The follow-up studies in 1992, however, showed that this was not so. What in fact contributed to a magnet hospital status was a department's flexibility in designing several nursing care delivery systems based on patient needs and staffing resources, rather than its use of a single care delivery system throughout the hospital.

Ringer *et al.*[186] evaluated a patient care delivery model that included care partners to help registered nurses with the physical aspects of patient care. Data were collected before and after implementation of the model over a three-year period. Results showed an increase in satisfaction following implementation of the model. In addition, there was a significant increase in satisfaction with regard to autonomy and a small increase in satisfaction with regard to professional status. Other studies failed

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[185] M. Kramer, and C. Schmalenberg, "Learning from Success: Autonomy and Empowerment," p. 59.

[186] D.W. Ringer, A.M. Aliberti, C. Ball, M. Peruzzi, and K.A. Tassey, "Nurse Satisfaction in Patient Care Redesign," in Nurses and Work Satisfaction: An Index for Measurement. 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 294.

to demonstrate a significant increase in satisfaction following implementation of patient care delivery models.[187,188] One possible explanation for these results and indeed this could be regarded as a limitation of the study is the short period of time between pre and post innovation data collection.

Kovner *et al.*[189] analysed the effect of nursing care delivery models on nurse satisfaction in 37 hospitals. The results indicated that all the care delivery models increased nurses' decision-making authority and level of satisfaction. These researchers, however, stressed that the effect of innovation is sometimes difficult to determine in the short term, as changes within an organisation frequently require a long period of time before a change is noticeable.

Ingersoll *et al.*[190] undertook a longitudinal study to determine the effect of a professional practice model on staff nurse satisfaction. The researchers used five experimental units and five comparison units and data were collected shortly before the model implementation and at yearly intervals for three years after the model was implemented. The results showed that although there was a slight increase in the level of job satisfaction among nurses in the experimental units during the course of the study, it did not improve significantly more than that of the nurses in the

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[187] S.E. Pearson, "Nursing Model and Work Satisfaction," in Nurses and Work Satisfaction: An Index for Measurement. 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 296.

[188] L. Joy, and M. Malay, "Using the IWS to Evaluate a Change in a Nursing Care Delivery System," in Nurses and Work Satisfaction: An Index for Measurement. 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 299.

[189] C.T. Kovner, G. Hendrickson, J.R. Knickman, and S.A. Finkler, "Nursing Care Delivery Models and Nurse Satisfaction," Nursing Administration Quarterly 19 (1994): p. 74-85.

[190] G.L. Ingersoll, A.W. Schultz, S.A. Ryan, and N. Hoffart, "A Longitudinal Study of the Effect of a Professional Practice Model on Staff Nurse Satisfaction," in Nurses and Work Satisfaction: An Index for Measurement. 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 111.

comparison units. The authors suggest that this negative finding may be due to several factors. One explanation is that professional practice models that focus on increased staff nurse control and collaborative practice among care providers may not necessarily impact on the overall satisfaction with the work environment. Second, because previous studies have measured the impact of innovations on job satisfaction over shorter periods of time, they were unable to compare their findings with studies of similar duration to their own. Despite these findings, a major strength of this study is the decision to use a longitudinal design to assess the impact of an innovation on job satisfaction over time. The authors suggest that "although satisfaction is considered to be a stable indicator of perception of work environment, no other studies have measured its stability for the length of time used in this study."[191]

2.17.2 Supervision and Management Style

One aspect of work-group functioning considered to be important concerns the relationship between the work-group and supervisor. Like pay, it is difficult to generalise the importance of supervision on the job satisfaction of individuals. The "Human Relations" school would regard friendly supervision as being of utmost importance in improving job satisfaction. Herzberg *et al.*[192] examined the findings of sixteen studies. These researchers found that supervision was ranked sixth in importance. Another major influence in the area of supervision was the research undertaken by Lewin, Lippett and White in 1939.[193] In their experiment, a group of

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[191] Ibid., p. 116.

[192] F. Herzberg, B. Mausner, R.O Peterson, and D.E. Capwell, Job Attitudes: Review of Research and Opinion, (Pittsburgh, Pennsylvania: Psychological Service of Pittsburgh, 1957).

[193] K. Lewin, R. Lippett, and R.K. White, "Patterns of Aggressive Behaviour in Experimentally Created Social Climates," Journal of Social Psychology 10 (1939): p. 271-299.

boys was required to undertake tasks under three different styles of leadership: authoritarian, democratic and laissez- faire. Under the authoritarian leader the boys were given tasks to do without being given opportunities to participate in any decisions and the group was directed without any attempt at social support. The democratic leader encouraged participation and took the views of the boys into account when allocating tasks, provided encouragement and social support and discussed various problem solving activities with the boys. The laissez-faire leader did not participate much in the decision-making process. The results of this experiment showed a definite preference by the boys for democratic leadership.

In the literature on nursing, an increasing amount of research has focused on the relationship between leadership style and level of satisfaction among head Nurses.[194,195,196] Other studies focus on management styles in an attempt to capture the overall picture within an organisation. Morrison *et al.*[197] undertook a study to examine the relations between leadership style, empowerment and job satisfaction among nursing staff of a regional medical centre. The results showed that both transformational[198] and transactional[199] leadership are positively related to job

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[194] H.E. Hansen, C.Q. Woods, D.K. Boyle, M.J. Bott, and R.L. Taunton, "Nurse Manager Personal Traits and Leadership Characteristics," Nursing Administration Quarterly 19 (1995): p. 23-35.

[195] D. Irvine, and M.G. Evans, "Job Satisfaction and Turnover Among Nurses: Integrating Research Findings across Studies," Nursing Research 44 (1995): p.246-51.

[196] B.H. Garrett, "The Relationship Among Leadership Preferences, Head Nurse Leader Style and Job Satisfaction of Staff Nurses," Journal of New York State Nurses Association 22 (1991): p. 11-14.

[197] R.S. Morrison, LaDon Jones, and B. Fuller, "The Relationship Between Leadership Style and Empowerment on Job Satisfaction of Nurses," Journal of Nursing Administration 27 (1997): p. 27-34.

[198] Transformational leadership is similar to charismatic leadership, but is distinguished by its special ability to bring about innovation and change.

satisfaction, with correlations of 0.64 and 0.35 respectively. Interestingly, only transformational leadership was positively related to empowerment, with a correlation of 0.41. In a large-scale research project, Weisman *et al.*[200] examined levels of satisfaction among nurses participating in a unit self-management innovation. When the researchers compared the self-managed units with those that were not self-managed, there were higher levels of satisfaction and retention rates among nurses working in the self-managed units.

Another interesting feature about the research in this area is that satisfaction is related to leadership and management styles that are more participative. A study, by Drews and Fisher[201] in 1996, demonstrated that as management style among supervising nurses became more participative, the level of satisfaction became higher among staff nurses. Lucas'[202] study of 502 nurses from four different hospitals revealed a strong relationship between participative management and job satisfaction among staff nurses. Shared governance[203] is one innovation that was designed to increase participative management. It advocates a management structure in which communication channels cross hierarchic boundaries. Such a structure fosters a work

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[199] Transactional leadership focuses on performance outcomes. It stresses the impersonal aspects of performance, such as plans, schedules and budgets. Transactional leaders guide or motivate subordinates by clarifying subordinates' role and task requirements, defining policy and procedures.

[200] C.S. Weisman, D.L. Gordon, S.D. Cassard, M. Bergner, and R. Wong, "The Effects of Unit Self-Management on Hospital Nurses' Work Process, Work Satisfaction and Retention," Medical Care 31 (1993): p. 381-93.

[201] T.T. Drews, M.C. and Fisher, "Job Satisfaction and Intent to Stay: RNs Perceptions," Nursing Management 27 (1996): p.58.

[202] M.D. Lucas, "Management Style and Staff Nurse Job Satisfaction," Journal of Professional Nursing 7 (1991): p. 119-25.

[203] Shared governance is an innovative organisational model that promotes autonomy of nurses. It empowers clinical nurses to participate in the decision-making process with regard to nursing practice, standards and quality care.

environment in which autonomy and accountability for establishing policy and participation in planning are fundamental to the professional's role.

Mancini[204] undertook a study to determine if a shared-governance management structure has a significant effect on the level of job satisfaction among registered nurses. A sample of 442 nurses from a hospital with no shared-governance was invited to participate and another sample of 99 registered nurses was randomly selected from a hospital where the shared-governance model had existed for seven years. The results of this study revealed that the hospital with shared-governance had higher levels of nurse satisfaction than the hospital with no shared-governance.

Nurses were more satisfied with autonomy, organisational policies and task requirements which, according to Mancini, were the components of satisfaction that should show the most change under the shared-governance model of management. In a similar study, Prock[205] examined the difference in job satisfaction between staff nurses who worked in a hospital with a shared-governance model of management and those who did not. The results revealed no significant differences in overall job satisfaction between the two hospitals. The author suggested two reasons that might explain this finding. Firstly, the sample size from the hospital without shared governance was very small and secondly, the shared governance model had been in place only for a short period. It is possible that enough time had not elapsed between

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[204] V. Mancini, "The Relationship Between a Shared Governance Management Structure and Registered Nurse Job Satisfaction," in Nurses and Work Satisfaction: An Index for Measurement, 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 133.

[205] S. Prock, "The Effects of Shared Governance on the Job Satisfaction of Hospital Staff," in Nurses and Work Satisfaction: An Index for Measurement, 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press 1997), p. 301.

the introduction of the model and the commencement of the study to demonstrate changes in satisfaction.

2.17.3 Organisational Structure

The study of supervisory behaviour by Lewin *et al.*[206] led to the identification of three distinct styles, namely democratic, authoritarian and laissez-faire. Democratic supervisors take on board the views of employees, take into account the values, needs and feelings of employees and endeavour to improve the welfare of employees within the work environment. On the other hand, authoritarian supervisors do not involve employees in the decision-making process and concentrate on achieving the organisational goals without taking into account the welfare of employees. Not only individuals or small groups but also organisations can be described as authoritarian and task driven. Such organisations are known as bureaucratic structures. According to Georgopoulos & Mann,[207] the hospital, despite being a human rather than a machine system is also

> ....a highly formal, quasi-bureaucratic organisation which, like all task-oriented organisations, relies a great deal upon formal policies, formal written rules and regulations, and formal authority for controlling much of the behaviour and work relationships of its members. The emphasis on formal organisational mechanisms and procedures and on directive rather than "democratic" controls, along with a number of other factors, gives the hospital its much talked about "authoritarian" character, which manifests itself in relatively sharp patterns of superordination-subordination, in expectations of strict discipline and obedience, and in distinct status differences among organisational members.[208]

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[206] K. Lewin, R. Lippett, and R.K. White, "Patterns of Aggressive Behaviour in Experimentally Created Social Climates," Journal of Social Psychology 10 (1939): p. 271-299.

[207] B.S. Georgopoulos, and F.C. Mann, "The Hospital as an Organisation," in Patients, Physicians and Illness, ed. E.G. Jaco 3rd ed. (New York: The Free Press, 1979), p. 298.

[208] Ibid.

Bureaucratic structures are organisational structures that are hierarchical in nature. Progression through such an organisation is made by moving from the least powerful to the most powerful as one ascends the organisational hierarchy. In addition, bureaucratic structures tend to be pyramid-shaped, with larger numbers of employees at the bottom of the pyramid and fewer in command at the top.[209] Research has shown that workers whose jobs offer little task variety or task autonomy (jobs on the conveyor belt) become frustrated by the nature of such jobs.[210] Argyris[211] has argued that it is this aspect of bureaucratic structure that is in conflict with an individual's need for fulfilment.

In addition to the problems associated with the job itself, bureaucratic structures have a number of other deficiencies, which are likely to affect job satisfaction. For example, because, of their hierarchical structure, employees at the bottom often have difficulty in communicating with those at the top who are making decisions about their jobs. Therefore, decisions are more likely to be made without considering the needs or welfare of employees. Yet another problem associated with hierarchical structures concerns the distance between those at the top and those at the bottom. This distance can lead to delays in communication, so that when problems occur a considerable amount of time elapses before they are resolved, with a consequent effect on job satisfaction.

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[209] M.M. Gruneberg, Understanding Job Satisfaction, p. 82.

[210] C.R. Walker, and R.H. Guest, "The Man on the Assembly Line," Harvard Business Review 30 (1952): p. 71-83.

[211] C. Argyris, "Personality and Organisation Theory Revisited," Administrative Science Quarterly 18 (1973): p. 141-67.

Another major problem associated with bureaucratic structures relates to the assumption that relationships are of little importance, and that employees can be moved around within the organisation if and when required. Such an assumption, according to Gruneberg,[212] demonstrates a blatant disregard for social relationships that employees establish at work, and which for many are a major source of satisfaction. To move people around without due consideration for such relationships can lead to feelings of exasperation and dissatisfaction.

Despite this discussion, it is important to point out that not all aspects of bureaucratic structures are unhealthy. For example, employees are guided by rules and procedures that will ensure reliable, predictable behaviour,[213] which in many situations is quite appropriate. Few individuals would wish a health care service that held small group discussions on every decision. According to Gruneberg,[214] different types of organisational structures provide for the satisfaction of different needs. Bureaucratic structures provide greater satisfaction of security needs while flat, non-hierarchical, non-bureaucratic structures provide greater satisfaction of higher level needs. Bureaucratic structures, where rules and procedures are clearly stated, are more likely to appeal to individuals who have strong needs for security. Thus, matching individuals who are bureaucratically orientated to bureaucratic organisations is likely to result in increased job satisfaction. Conversely, individuals who are creative and

[212] M.M. Gruneberg, Understanding Job Satisfaction, p. 83.

[213] R.L. Daft, Management, 5th ed., (New York: The Dryden Press, 2000), p. 651.

[214] M.M. Gruneberg, Understanding Job Satisfaction, p. 84.

wish to participate in decision-making are more likely to enjoy democratic structures.[215]

2.17.4 Turnover

One of the most common reasons for investigating job satisfaction is based on the belief that there is a link between level of job satisfaction and turnover among nurses. This is of particular importance, given that the nursing profession has been plagued with high levels of turnover for several years.[216] So important is nursing turnover that nearly every research article on job satisfaction refers either to turnover, retention or shortage. Turnover refers not only to nurses who leave their jobs or the nursing profession but also to nurses who transfer from one unit or department within the same hospital. Regardless of whether nurses leave their jobs, the profession or transfer to other units within their hospitals, the cost of turnover is substantial.

Lum *et al.*[217] reported that job dissatisfaction is the most significant reason for turnover among nurses. Irvine and Evans[218] undertook a meta-analysis of studies on turnover. The purpose of this study was to determine the factors that contribute to turnover. A consistent finding in this meta-analysis was that turnover behaviour increased as job satisfaction levels decreased. These findings were supported by

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[215] L.V. Gordon, "Measurement of Bureaucratic Orientation," Personnel Psychology 23 (1970): p. 1-11.

[216] M.A. Blegen, "Nurses Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[217] L. Lum, J. Kervin, K. Clark, F. Reid, and W. Sirols, "Explaining Nursing Turnover Intent: Job Satisfaction, Pay Satisfaction, or Organisational Commitment?" Journal of Organisational Behaviour 19 (1998): p. 305-320.

[218] D. Irvine, and M.G. Evans, "Job Satisfaction and Turnover Among Nurses: Integrating Research Findings Across Studies, " p. 246-251.

Tovey and Adams[219] who found that "organisational issues" were the key factors responsible for dissatisfaction among nurses. Some of these organisational issues included dissatisfaction with working relationships with some colleagues (particularly those working in managerial positions), poor staffing levels, and concerns about poor standards of care. In a study designed to investigate the impact of job satisfaction on intentions to quit, Shields and Ward[220] reported that their results "provide strong evidence that job satisfaction is the single most important determinant of intention to quit among NHS nurses."

McCarthy *et al.*[221] undertook a national study of turnover in nursing and midwifery in Ireland. The results indicated that the rate of turnover in nursing and midwifery remains a major problem across services in the Irish health care system. When turnover rates for all services were examined, an average rate of 12% was indicated for 1999 and 2000. These results are alarming. When they are compared, however, with statistics in other countries the Irish turnover rates appear considerably less. Additional findings from McCarthy's study reported that 35% of nurses indicated that the main reason they left their current position was "to pursue other employment in nursing". In follow-up interviews, however, "negative work issues" and a need for "professional development" emerged as one of six major themes that contributed to nurse turnover. With regard to "negative work issues", many respondents reported feeling "undervalued" and "disillusioned" in nursing and with the nursing profession

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[219] E.J. Tovey, and A.E. Adams, "The Changing Nature of Nurses' Job Satisfaction: An Exploration of Sources of Satisfaction in the 1990s," p. 150-158.

[220] M.A. Shields, and M. Ward, "Improving Nurse Retention in the National Health Service in England: The Impact of Job Satisfaction on Intentions to Quit," Journal of Health Economics 20 (2001): p. 677-701.

[221] G. McCarthy, M.P. Tyrrell, and C. Cronin, National Study of Turnover in Nursing and Midwifery (Dublin: Department of Health & Children, 2002), p. 67-83.

generally. In relation to "professional development", respondents stressed the importance of working "as part of a multidisciplinary team", "to have increased autonomy", "increased responsibility", and "more respect" regarding their ability to contribute to their clinical work.

An interesting finding from McCarthy's study was that respondents who had either left their jobs or indicated they intended to leave their jobs reported that a number of factors would encourage them to remain in their jobs. Better pay was the most important factor and 80% of respondents who had left their jobs reported that their pay was "poor" or "very poor". In addition, a large number (743) of nurses who left their jobs reported that their jobs were either "moderately" or "quite" routine, and a similar number (790) stating that their jobs were repetitive. Other factors that would induce nurses to stay include decrease in workload, more opportunities to develop skills, increased autonomy and greater control of the delivery of care to patients, management support and greater recognition and respect. These findings are similar to those of a Swedish study undertaken by Bjorvell and Brodin.[222] These authors found that factors related to lack of administrative support were significantly related to dissatisfaction, which was one of the main reasons for turnover.

The research evidence concerning the relationship between job satisfaction and employee turnover appears conclusive. What is clear also is that many nurses may have remained in their jobs had they received greater support from management. The main issue now is for nurse administrators and nurse managers to introduce retention

[222] H. Bjorvell, and B. Brodin, "Hospital Staff Members are Satisfied with their jobs," Scandinavian Journal of Caring Science 6 (1992): p. 9-16.

strategies that provide greater autonomy, professional development and support from management.

2.18 Summary of the Literature on Job Satisfaction as an Outcome of Organisational Factors

Section 2.12 of this chapter discussed the literature about the dependent variable namely, job satisfaction. As a preamble, job satisfactions was defined, a short historical outline presented and a discussion about how job satisfaction is measured given. Earlier in this chapter the reader was informed that job satisfaction was conceptualised as a dependent variable in one of two ways. Therefore, section 2.16 addressed the literature that viewed job satisfaction as the outcome of a specific job. These research studies are so varied that it is rather difficult to provide a comprehensive summary of the results. Suffice to say that the results were mixed. Methodologically two points are worthy of note. Firstly, a variety of instruments were used for measuring job satisfaction. Secondly, some of the researchers reported that they had used the Index of Work Satisfaction (IWS) Questionnaire[223] to measure job satisfaction. Another important feature, about the studies that focus on specific types of nursing jobs, is that the findings have contributed to a better understanding of particular aspects of some of the jobs that nurses do.

Section 2.17 discussed the literature that conceptualised job satisfaction as an outcome of organisational factors. When the research studies in this section are viewed collectively, it is clear that job satisfaction which is remarkably low, can be improved in many instances by making simple changes within organisations. These

[223] The Index of Work Satisfaction (IWS) Questionnaire was used as a measuring instrument in the present study.

changes, however simple, must be implemented fully and must have an impact not only on the work that nurses do but also on the manner in which organisations treat their nurses. It is important that further research in this area is undertaken. By doing this, organisations can deal more effectively with nurse job satisfaction so that individuals and organisations can function effectively and in a way that promotes personal and professional development.

2.19 Literature that Relates the Independent Variable (Organisational Climate) to the Dependent Variable (Job Satisfaction).

As stated earlier, Creswell's[224] model for delimiting the literature review was used to develop the structure of this chapter. This model recommends delimiting the literature that relates to (a) the independent variable, (b) the dependent variable and (c) the independent and dependent variables. According to Creswell,[225] the section that presents the scholarly literature that relates the independent variable to the dependent variable forms the crux of any proposed study. Following several searches of the nursing literature four research articles and one dissertation similar in topic to the present study were located.

In 1974 Lyon & Ivancevich[226] undertook a study to investigate nurses and administrators' perceptions of hospital climate and to explore the relationships between hospital climate and job satisfaction. A professor and associate professor conducted this study in a 450 bed teaching medical centre, located in a large

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[224] J.W. Creswell, Research Design: Qualitative and Quantitative Approaches, p. 28.

[225] Ibid., p 29.

[226] E.L. Lyon, and J.M. Ivancevich, "An Exploratory Investigation of Organisational Climate and Job Satisfaction in a Hospital," Academy of Management Journal 17 (1974): p. 635-48.

university in United States of America. Herbert Lyon is associate professor of Business Administration at the University of Kentucky and John Ivancevich is professor of Organisational Behaviour and Management at the University of Houston. These researchers reported that, while several research studies focusing upon climate had been previously undertaken in educational institutions and business organisations, the organisational climate of the hospital had not been previously investigated. The sample consisted of individuals who performed administrative or supervisory duties (e.g. manager of computer services, administrative assistant, director of personnel services) and 65 nurses. A pre-tested questionnaire was distributed to a total of 134 individuals. The response rate was 67% (99 from administration and 35 from nurses). The instruments used were "The Organisational Climate Description Questionnaire" (developed by Halpin and Croft,[227]) and job satisfaction facets of self-actualisation, autonomy and esteem were measured by a nine-item questionnaire using a Likert scale. The authors did not state who developed this questionnaire. Data were also collected through interviews with nurses, physicians, administrators, and graduate students working in the hospital prior to and after the administration of the questionnaire. While the authors stated that the interviews focused on climate and satisfaction and provided the researchers with an insight into internal functioning of the hospital, they did not indicate whether the data collected from the interviews were used to develop or inform the survey.

The authors set out to determine whether there were significant differences between administrator and nurse perceptions of climate dimensions and job satisfaction facets. The results demonstrated no statistically significant differences in perceptions

[227] A. Halpin, and D. Croft, The Organisational Climate of Schools, 1962.

between these two groups of workers. The findings also indicated that different climate dimensions influence job satisfaction facets for nurses and for administrators. For example, there was a significant relationship between self-actualisation and the hindrance and disengagement dimensions of the climate questionnaire for nurses. Thus, a nurse's satisfaction with self-actualisation appears to have some dependence on freedom from routine or busy work and improving task involvement. For the administrators there was a significant relationship between the thrust[228] dimension in the climate questionnaire and the job satisfaction facets examined. In view of these findings the authors suggested that administrators in hospital studied are best satisfied with a task-orientated environment. Despite this, the authors reported that, in general, organisational climate for both occupational groups had the most significant impact on self-actualisation,[229] a lesser impact on autonomy, and only a slight impact on esteem.[230]

Such findings are in complete contrast to those reported by Friedlander and Margulies,[231] who found that climate in an electronics firm had the least impact on the self-actualisation of employees. This difference in findings between these two studies may be due to the different research settings and or the different occupational groups studied. The nurse is a professional and the administrator is part of management

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[228] H.L. Lyon, and J.M. Ivancevich, "An Exploratory Investigation of Organisational Climate and Job Satisfaction in a Hospital," p. 640. These authors stated "Thrust refers to management behaviour characterised by efforts to get the organisation moving. This behaviour is marked by attempts to motivate through example. Behaviour is task orientated and viewed favourably by members."

[229] Self-actualisation refers to personal growth, sense of accomplishment, advancement opportunity, and challenging work.

[230] Esteem refers to importance within and outside the hospital.

[231] F. Friedlander, and N. Margulies, "Multiple Inputs of Organisational Climate and Individual Value Systems Upon Job Satisfaction," p. 171-83.

while the electronics employees were line workers. This study examined some important issues relevant to organisational climate and selected job satisfaction facets in an environment not previously researched, namely the teaching hospital. The authors of this study reported that to the best of their knowledge this was the first study of its kind in a hospital. From the literature reviewed, it would appear to be one of the first published research studies of organisational climate and job satisfaction of nurses. Despite this, however, the findings should be used with caution. Firstly, the sample of nurses was quite small (N=35) and was not selected randomly. Secondly, only one hospital was included in the study and it is possible that different hospitals may well perceive climate dimensions and job satisfaction facets differently. Thirdly, the job satisfaction instrument used in this study contained only three variables and it is possible that other variables may be important to nurses' job satisfaction. Despite these limitations, however, the study was useful in bringing to the fore the importance of examining climate and job satisfaction within the hospital environment.

Gillies *et al.*[232] undertook a study in 1990 to examine the relationship between organisational climate and job satisfaction among nurses. These authors explained that although organisational climate is known to affect job satisfaction of employees working in business and industry, little is known about the organisational climate of hospitals and its impact on nurses' job satisfaction. The design selected by these authors was a descriptive survey. The population under study was composed of nurses. A convenience sample of 34 nurses from four units within one hospital was used. Subjects were predominantly female (93%), were between 30-39 years old (49%), and had between 1 to 4 years of nursing experience. The purpose of the study

[232] D.A. Gillies, M. Franklin, and D.A. Child, "Relationship Between Organisational Climate and Job Satisfaction of Nursing Personnel," p. 15-22.

and procedures were explained to nurses and those who wished to participate as subjects were asked to sign a consent form. Two instruments were used for data collection. These were the Organisational Climate Description Questionnaire developed by Litwin and Stringer,[233] and the Work Satisfaction Questionnaire developed by Stamps *et al.*[234] The findings from this study indicated that organisational climate does affect job satisfaction of nurses. Those nurses who were satisfied described organisational climate as high in responsibility, warmth, support and identity. For example, job satisfaction was mildly correlated with a climate of responsibility (r=.28), moderately correlated with a climate of warmth (r=.41), strongly correlated with a climate of support (r=.60) and strongly correlated with a climate of identity (r=.65).

Huey & Hartley[235] reported that factors such as responsibility, warmth, support and identity were among those that influenced job retention among nurses. Such findings would appear to suggest that nurse turnover could decrease if managers increase staff nurse autonomy, encouraged social activity among staff nurses, helped subordinates with difficult tasks, and generate *esprit de corps* among staff members. In conclusion, Gillies *et al.*[236] suggest that to create a climate high in responsibility, warmth, support and identity, managers might consider implementing participative management

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[233] G. Litwin, and R. Stringer, Motivation and Organisational Climate (Boston, Massachusetts: Division of Research, Graduate School of Business Administration, Harvard University, 1968), p. 66-92.

[234] P.L. Stamps, E.B. Piedmonte, A.B. Hasse, and D.M. Slavitt, "Measurement of Work Satisfaction Among Health Professionals," Medical Care 16 (1978): p. 337-52.

[235] F. Huey, and S. Hartley, "What Keeps Nurses in Nursing?" American Journal of Nursing 88 (1988): p. 181-88.

[236] D.A. Gillies, M. Franklin, and D.A. Child, "Relationship Between Organisational Climate and Job Satisfaction of Nursing Personnel," p. 15-22.

(increase responsibility), offer individual coaching for staff and adopt a more relationship-orientated leadership style (increase warmth), provide support groups and career counselling for staff nurses (increase support), reduce the amount of relief work nurses provide to other units or wards, and reduce the use of agency nurses (increase team identity).

This study has several strengths. Firstly, it examined the relationship between organisational climate and job satisfaction of nurses. In light of the current nurse shortage this is very relevant and worthy of investigation. Secondly, the design chosen was adequate and the instruments appropriate. In addition, the internal consistency[237] of the items that make up the Organisational Climate Description Questionnaire was given. This instrument consisted of nine items, five of which achieved internal consistency scores of between .31-.49. The remaining four items achieved scores of between .19-.29. The reliability of the Work Satisfaction Questionnaire was quite high - .91 and inter item correlations ranged from .69-.84. Thirdly, these findings are important because they demonstrated that organisational climate could affect the level of job satisfaction experienced by nurses. Despite these strengths, however, there are some limitations. The findings from this study cannot be generalised because of the small non-random sample used. Moreover, the sample was drawn from only one teaching hospital, which employed nurses under a civil service system that encourages long job tenure. While the authors did offer suggestions for improving the climate within the hospital, no specific

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[237] J. Pallant, SPSS Survival Manual (Buckingham: Open University Press, 2001), p. 6.
Pallant suggests that internal consistency refers to the degree to which the items that make up the scale are all measuring the same variable.

recommendations were made with regard to the management structure within the hospital where the study was undertaken.

In 1999 a study by Urden[238] was undertaken to examine the relationship between organisational climate dimensions and job satisfaction of registered nurses. The size of the sample was 600 nurses and the sampling strategy used was convenience sampling. It is rather confusing to determine which sampling strategy was actually used in this study as the author reported both convenience sampling and random sampling techniques. The sample was drawn from three paediatric hospitals in southern California and the response rate was 232 (39%). The instruments used to collect data were the Nurse Organisational Climate Description Questionnaire[239] (NOCDQ), developed by Duxbury *et al.* and the Index of Work Satisfaction Questionnaire (IWS), developed by Stamps. In addition biographical data were collected.

Urden reported that the relationship between each organisational climate dimension (thrust, esprit, intimacy, aloofness, disengagement and hindrance) and job satisfaction was examined. The results revealed a correlation between all the organisational climate dimensions except "intimacy" and job satisfaction. Strong positive correlations were demonstrated between thrust and job satisfaction ($p < .001$) and esprit and job satisfaction ($p < .001$). Negative correlations were found between job satisfaction and aloofness ($p < .01$), disengagement ($p < .001$) and hindrance ($p < .001$). Thus, it would appear that nurses who, perceived their supervisors to be aloof,

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[238] L.D. Urden, "The Impact of Organisational Climate on Nurse Satisfaction," p. 44-48.

[239] The Nurse Organisational Climate Description Questionnaire (NOCDQ) was used as a measuring instrument in the present study.

presented obstacles in their way and felt disengaged from the group goals, reported less job satisfaction.

Urden's study has both strengths and weaknesses. A major strength relates to the timeliness of the study. At present the nursing profession is experiencing a global shortage and several studies have demonstrated low job satisfaction among nurses. In addition, it would appear that there is an association between organisational factors and job satisfaction. Therefore, any research study that tries to explain these relationships is both important and timely. A second strength is that the author used pre-existing instruments with strong reliability scores. Another strength of this study concerns the discussion that the author provides on the implications of the findings for nurse managers and administrators. In brief, Urden makes several suggestions that could be implemented in order to improve the organisational climate within which nurses work.

Despite the strengths identified, there are some deficiencies also. Firstly, this reader was confused about the actual sampling strategy used. Two sampling strategies were reported, namely, convenience and random sampling. Secondly, the findings cannot be generalised to the wider population of nurses because the sample was small. It consisted of nurses from one speciality (paediatrics) only, and included hospitals from one geographic region. Thirdly, no research questions or hypotheses were stated. Fourthly, the author did not report any findings between biographical data and job satisfaction. In addition, the author did not report the overall level of job satisfaction among her sample nor did she clarify whether her unit of analysis was the nurse or the organisation.

Keuter *et al.*[240] designed a descriptive correlational study to examine the relationship between nurses' job satisfaction and organisational climate. The study was undertaken in a 300-bed acute care university health centre in the U.S. A convenience sample of 37 nurses from two in-patient units was used. These units were an 18-bed bone marrow transplant and haematology unit and a 19-bed intensive care unit. The authors explained that these two units were selected because they had both experienced similar changes. These changes included an expansion in patient numbers, greater variety of diagnoses and reduced job security, since the merger of two units and a spate of nursing redundancies.

Two measurement instruments were used. Organisational climate was measured using the Motivation and Organisational Climate Survey developed by Litwin & Stringer. Job satisfaction was measured using the Index of Work Satisfaction (Part B) which was developed by Stamps. Reliability and validity of both instruments were assessed in a pilot study of nine nurses. The findings from the study revealed a significant correlation between organisational climate and job satisfaction. Further analysis revealed that the nurses in this sample rated organisational structure, organisational support, and professional status as being important to their job satisfaction. When the findings from the two units were compared, the researchers found that nurses working in the bone marrow transplant unit demonstrated higher levels of job satisfaction and a more positive attitude toward organisational climate than their counterparts working in the intensive care units. This is a rather interesting finding as previous research comparing nurses working in intensive or critical care

[240] K. Keuter, E. Byrne, J. Voell, and E. Larson, "Nurses' Job Satisfaction and Organisational Climate in a Dynamic Work Environment," Applied Nursing Research 13: 1 (2000): p. 46-49.

units and nurses working in other specialities did not report any significant differences in job satisfaction.[241]

Once again it is rather difficult to compare the findings from this study with those of other research studies, because on the whole researchers have used different measurement instruments. In addition, these findings cannot be generalised to the wider nursing community because of the small sample size and the sampling strategy used. Nevertheless, Keuter's study did demonstrate a strong correlation between organisational climate and job satisfaction, a finding, which is consistent with other studies reviewed. In the published literature, this is one of the most recent studies that examined the relationship between organisational climate and job satisfaction among nurses. For this reason, it offers a useful benchmark for comparing the findings from the present study.

2.20 Summary of Literature that Relates the Independent Variable (Organisational Climate) to the Dependent Variable (Job Satisfaction)

Section 2.19 discussed research studies that examined the relationship between organisational climate and job satisfaction. Because different measurement instruments were used it is quite difficult to compare the findings from these studies. Nonetheless, a common feature of these studies is that they all established a correlation between organisational climate and job satisfaction among nurses. Many of the studies employed non-probability sampling techniques and used samples that were very small. This meant that the findings could not be generalised to the larger nursing community. Before concluding this summary, it is essential to remind the

[241] C. Williams, "Job Satisfaction: Comparing Coronary Care and Medical/Surgical Nurses," p. 104A-104H.

reader of one final point. At the beginning of section 2.19 it was pointed out that in the published literature few research studies had examined how biographical factors can affect job satisfaction, and the relationship between organisational climate and job satisfaction among nurses. This is evident from the dates recorded in the research studies reported here. Therefore, the timing of the present study is appropriate. Section 2.21 collates the main deficiencies identified in the literature.

2.21 Deficiencies Identified in the Literature

This chapter provided information about the scholarly literature for the two independent variables (biographical factors and organisational climate) and the dependent variable (job satisfaction). While some of the deficiencies within the literature were identified as the chapter progressed, it is important, nonetheless, to collate the deficiencies and address them collectively since they played an important role in justifying the need for undertaking the present research study. The deficiencies between biographical factors and job satisfaction will be addressed first; after which, the deficiencies between organisational climate and job satisfaction will be put forward.

2.21.1 Deficiencies Regarding the Effects of Biographical Factors on Job Satisfaction

While some of the studies examined biographical factors for descriptive purposes only others did explore how biographical factors affect job satisfaction. When these research studies, however, are evaluated no clear picture emerges with regard to the relationship between biographical factors and job satisfaction. For the most part, studies have shown small and inconsistent effects of variables such as age, gender, education and personality on job satisfaction. This does not mean that these factors

are not important only that organisational factors are more important than are biographical factors. In part, this may be due to the fact that individuals choose jobs which are likely to produce some satisfaction, irrespective of their personal characteristics. It is clear from the research reviewed that further work remains to be done. For this reason, the present study was designed to collect biographical data from respondents. Unlike many of the studies reviewed, the present study will use the data to both describe the sample and examine how biographical factors affect job satisfaction.

2.21.2 Deficiencies Regarding the Relationship Between Organisational Climate and Job Satisfaction

Firstly, nearly all the studies reviewed examined the organisational climate of one or two organisations only. Therefore, the results of any one study are the collective perceptions a group of people have, about the climate of one organisation. According to Schneider[242] this approach is unsuitable for measuring an organisational trait. Instead, Schneider suggests using a sample that is made up of a number of organisations in the same field. In view of this deficiency, the present study was justified because it used a national sample of nurses working in a variety of organisational settings.

Secondly, research studies of organisational climate generally focus on the individual s perceptions of an environment, rather than the actual shared experiences of organisational members. This means that the individual, not the organisation, is the

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[242] B. Schneider, "The Perceived Environment: Organisational Climate." Paper presented at Midwest Psychology Association (May 1973): quoted in K. Downey, D. Hellriegel, M. Phelps, and J.W. Slocum, "Organisational Climate and Job Satisfaction: A Comparative Analysis," Journal of Business Research 2 (1974): p. 233-248.

unit of analysis, and climate is measured using items contained in a scale. The scores for the items in the scale are summed in order to provide a score for the individual. From the studies reviewed, it is difficult to determine whether the unit of analysis was the individual or the organisation. Given that all the studies reviewed in section 2.19 of this chapter examined the organisational climate between different units within one organisation or between two or three hospitals, a reasonable assumption is that the unit of analysis was the organisation rather than the individual. This leads one to conclude that within the published literature, few studies have examined organisational climate using the individual as the unit of analysis. The present study will examine organisational climate using the individual as the unit of analysis and therefore, is justified.

Thirdly, all the studies reviewed in section 2.19 and indeed several others reported in this chapter have used small samples. In addition, many used non-probability sampling techniques. This is a major methodological deficiency, as the findings cannot be generalised to the wider nursing community. In addition, many policy makers and nursing administrators may be reluctant to introduce changes based on the outcomes of small-scale studies. The present study addresses this deficiency by using a probability sampling technique to select its sample of 2000 nurses.

Fourthly, of those studies that examined the relationship between organisational climate and job satisfaction, none reported that they had tested a specific theory. In addition, none of the researchers reported whether they had constructed a theoretical framework or model, to predict the relationships between the variables they had investigated. While the present study was not designed to test a specific theory, a tentative framework was proposed. The framework was constructed in two parts.

Part one predicts the relationship between the independent and dependent variables and will be tested. Part two utilised a conceptual map of Two-Factor theory and will be used to interpret the findings on job satisfaction.

Fifthly, the literature suggests that nurses generally report low levels of job satisfaction. These studies, however, have failed to report what the actual level of job satisfaction was (no numerical value given for current level of job satisfaction). The present study aims to address this shortcoming. No known Irish studies have examined how biographical factors influence job satisfaction or investigated the relationship between organisational climate and job satisfaction. Therefore, the present study is justified because it will contribute invaluable information about these variables with regard to nurses in the Republic of Ireland. Another unique feature that further justifies undertaking the present study is that the findings will be entered into a database maintained in the United States of America. Therefore, the findings from the present study will be available to other researchers.

2.22 Summary and Conclusion

The introduction to this chapter informed the reader of the purpose of reviewing the literature and discussed the main reasons why job satisfaction is so widely researched. This was followed by a summary of how job satisfaction is conceptualised in the literature. Next, the reader was informed that the literature review was presented using a model proposed by Creswell. Briefly, this model suggests presenting the review in sections that discuss the literature about (a) the independent variables, (b) the dependent variable and (c) studies that relate the independent variables to the dependent variable. The introduction concluded with a summary of the structure of this chapter.

The review began with an overview of the literature about the independent variables. The two independent variables under investigation in the present study are biographical factors and organisational climate. With regard to the literature on biographical factors, it would appear that most researchers include some biographical data about their samples when investigating job satisfaction among nurses. While many of the studies include biographical factors for descriptive purposes, others do examine how biographical factors influence job satisfaction. When these studies are evaluated, however, no clear picture emerges with regard to the relationship between biographical factors and job satisfaction. For the most part, studies have shown small and inconsistent correlations of variables such as age, gender, education and personality on job satisfaction. This does not in any way indicate that these factors are not important, only that, organisational factors are more important than are biographical factors. In part, this may be due to the fact that individuals choose jobs which are likely to produce some satisfaction, irrespective of their personal characteristics. It is clear from the research reviewed that further work remains to be done. For this reason the present study will examine how biographical factors influence job satisfaction.

The review of the literature on organisational climate began with a brief historical overview. The discussion then moved on to clarify the difference between climate and culture. It would appear, that the terms climate and culture are sometimes used interchangeably but there are differences between them. Much of the material that followed addressed the measurement of climate. In the organisational literature it would appear that climate is measured in one of three ways: as an independent variable, as an intervening variable, or as a dependent variable. In the present study orgarisational climate was measured as an independent variable. Although the reader

was informed about subjective and objective measures of climate, greater emphasis was placed on perceptual measures, as this was the method used for analysing climate in the present study.

During the 1960s and 70s organisational researchers showed an increased interest in both the organisational climate construct and its measurement. This interest was stimulated by the possibility that organisational climate may have a powerful influence on variables such as satisfaction, performance and turnover. Before departing from this section, it was important to draw the reader's attention to some of the criticisms reported in the literature concerning the climate construct and to summarise some of the research studies undertaken to refute these criticisms. This section concluded by reiterating the lack of research investigating the climate of health care organisations in the literature on nursing and consequently the lack of debate surrounding the issue.

This chapter then addressed the literature about the dependent variable namely, job satisfaction. Job satisfaction was defined, a short historical overview given, and issues regarding its measurement discussed. Earlier in this chapter, the reader was informed that job satisfaction was conceptualised as a dependent variable in one of two ways. Firstly, it was conceptualised as an outcome of a specific job that nurses do and secondly, as an outcome of organisational factors. Section 2.16 addressed the literature that viewed job satisfaction as the outcome of a specific job. These research studies are so varied that it is rather difficult to provide a comprehensive summary of the findings. Suffice to say that the results were mixed. Methodologically, two points are worthy of note. Firstly, although researchers used different instruments for measuring job satisfaction it would appear that several had used the Index of Work

Satisfaction (IWS). Another important feature of studies that focus on specific types of nursing jobs is that these findings have contributed to a better understanding of some of the jobs that nurses do.

Section 2.17 discussed the literature that conceptualised job satisfaction as an outcome of organisational factors. When the research studies in this section are viewed collectively it is clear that job satisfaction, which is remarkably low among nurses, can be improved in many instances by making simple changes within organisations. These changes, however simple, must be implemented fully and must have an impact not only on the work that nurses do but also on the way in which organisations treat their nurses. The overall impression one gets having reviewed this literature is that organisational factors play a central role in determining job satisfaction among nurses. Therefore, it is important that research in this area continues.

Section 2.19 of this chapter discussed research studies that examined the relationship between organisational climate and job satisfaction. Because different measurement instruments were used it was quite difficult to compare the findings from these studies. Nonetheless, a common feature of these studies is that they all established a correlation between organisational climate and job satisfaction among nurses. Many of the studies employed non-probability sampling techniques and used samples that were very small. Thus, the findings cannot be generalised to the wider nursing population. At the beginning of section 2.12, it was pointed out that in the published literature few research studies had examined (a) the effects of biographical factors on job satisfaction and investigated (b) the nature of the relationship between organisational climate and job satisfaction together. Therefore, the timing of the

present study is appropriate. While some of the deficiencies within the literature were identified throughout the chapter, it was important nonetheless to address the main deficiencies collectively since they played an important role in justifying the present study. These were presented in section 2.21 of this chapter.

It must be said that the literature on job satisfaction is so vast that it makes any attempt at providing an overview an arduous undertaking. What this chapter has done is summarise some of the major themes reported in the literature. Of necessity, many of the themes were selected on the basis of their relevance to the present study. In conclusion, it would seem appropriate to ask the question '*what has been learned about job satisfaction of nurses*?' Research has focused mainly on trying to understand what factors have the greatest impact on nurses' job satisfaction. It appears that the research studies fall within one of three categories. The first category concerns research that explored the personal characteristics of the nurses themselves. These studies examined how job satisfaction is influenced by biographical factors. The second category suggests that job satisfaction occurs as a result of the specific job that nurses do. The third category refers to research studies that view job satisfaction as an outcome of organisational factors such as structure, climate and culture.

The next chapter entitled "A Theoretical Perspective" addresses the theoretical literature regarding job satisfaction and organisational climate.

CHAPTER THREE

A THEORETICAL PERSPECTIVE

3.1 Introduction

Chapter Two discussed the scholarly literature on biographical factors, organisational climate and job satisfaction. It concluded by identifying the deficiencies in the literature that required further investigation. This chapter addresses the theoretical literature about job satisfaction and organisational climate. It is widely accepted that research is based on theory; that is, the ideas that lead a researcher to plan a study are grounded in a theoretical body of knowledge. Thus, it is important for this chapter to fulfil three purposes. Firstly, it will present a brief overview of the current theoretical underpinnings of job satisfaction. Secondly, it will review the literature on organisational theories in order to determine whether a theory suitable for investigating organisational climate and job satisfaction exists. Thirdly, using the literature it will develop a tentative framework that will be used to (a) predict the outcomes between the independent variables and the dependent variable and (b) assist in interpreting the findings on job satisfaction.

This chapter is made up of three major sections. These are an introduction, a main section and a short conclusion. The main section begins by reminding the reader of the importance of theory in research. This is followed by an overview of the two major theoretical perspectives that have predominated the job satisfaction literature. They are Expectancy theory and Two-Factor theory. Next, the chapter presents a summary of the literature on organisational theories. Here, the theories were characterised into two major groups. They are, theories of individual behaviour and

theories of organisational behaviour. Having summarised the theoretical literature the chapter moves on to discuss the tentative framework proposed by this researcher. The chapter concludes with a summary of the main issues addressed.

3.2 Importance of Theory in Research

Theory and research are interrelated. The reason for this is simple. Theory provides a foundation for research. It offers basic assumptions, guides researchers to the important questions and recommends ways for making sense of data. Theory also allows researchers to connect the findings from a single study to the larger knowledge base to which other researchers have contributed.[1]

Kerlinger[2] defined a theory as:

> .... A set of interrelated constructs (variables), definitions, and propositions that presents a systematic view of phenomena by specifying relations among variables, with the purpose of explaining natural phenomena (p 64).

This definition expresses three things. Firstly, that a theory is made up of a set of propositions that consists of well defined and interrelated constructs. Secondly, that a theory demonstrates the interrelations among a set of variables. Thirdly, that a theory clarifies phenomena. It does so by identifying which variables are related to which variables, thus allowing the researcher to make predictions from certain variables to other variables.[3]

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[1] W.L. Neuman, Social Research Methods: Qualitative and Quantitative Approaches 3rd ed., (Boston: Allyn & Bacon, 1997), p. 56.

[2] F.N. Kerlinger, Behavioural Research: A Conceptual Approach (New York: Holt, Rinehart & Winston,1979), p. 64.

[3] F.N. Kerlinger, Foundations of Behavioural Research 2nd ed., (New York: Holt, Rinehart & Winston, 1973), p.9.

Theory is important in almost all research, but its importance varies. Researchers who employ a deductive approach use theory to guide the design of their study and to interpret their findings. Such researchers may accept, refute, extend, or modify the theory on the basis of their results. Researchers who adopt an inductive approach use theory in a somewhat different way. The process of inductive theorising begins with a few assumptions and broad concepts. Theory develops from the bottom up as researchers collect and analyse the data.[4] Despite the importance of theory, many of the studies reviewed during the preparation of this dissertation did not report either the testing of a theory or the use of a theoretical framework to guide their studies. Before proposing the framework for the present study, brief overviews of theories of job satisfaction and organisational theories are given.

3.3 Theories of Job Satisfaction

In an attempt to explain the reasons why people are satisfied with their jobs several theories have been proposed. According to Muchinsky,[5] none of these theories have gathered a huge amount of empirical data to support them. This suggests that job satisfaction is a complex construct with many causal factors and that no one theory can capture all of them. Muchinsky further suggests:

> As is usually true with multiple theories about a single phenomenon, each theory seems to explain a piece of the puzzle, but a complete understanding is beyond its scope. [6]

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[4] W.L. Neuman, Social Research Methods: Qualitative and Quantitative Approaches, p. 57.

[5] P.M. Muchinsky, Psychology Applied to Work; An Introduction to Industrial and Organisational Psychology, p. 291.

[6] Ibid.

Having reviewed the literature on theories of job satisfaction Jayaratne[7] suggests that a common theme is evident; nearly all theories concur with the view that *satisfaction* is an affective[8] response between an individual and her or his environment. The differences between these theories lie in the nature of the interactions between individual and environment. This degree of consensus is astonishing on two counts. Firstly, because of the large volume of research studies reported in the literature and secondly, because the research on job satisfaction has been mainly atheoretical.

Despite this, however, Jayaratne suggests that two major theoretical perspectives have predominated the job satisfaction literature. The term theoretical perspective has been used rather than theory, because the reference is to a class of theories or world-views. In other words, several researchers have proposed theories that are basically promoting similar or overlapping views within a given perspective, albeit with different elements. Rather than discuss each theory, an overview of the two dominant theoretical perspectives that have featured significantly in the job satisfaction literature namely, *expectancy theory* and the *two-factor theory* is provided.

Lawler[9] identified four different theories: fulfilment theory, equity theory, discrepancy theory and two-factor theory. Locke[10] classified theories of job satisfaction into two categories. These were process theories (or causal models of job satisfaction) and content theories. Included in Locke's process theories are fulfilment

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[7] S. Jayaratne, "The Antecedents, Consequences, and Correlates of Job Satisfaction," in Handbook of Organisational Behaviour, ed. R.T. Golembiewski p. 112.

[8] Affect refers to feelings of like or dislike.

[9] E.E. Lawler, Motivation in Work Organisations (Monterey, California: Brooks/Cole Publishers, 1973).

[10] E.A. Locke, "The Nature and Causes of Job Satisfaction," in Handbook of Industrial and Organisational Psychology, ed. M.D. Dunnette p. 1302.

theory, equity theory, and discrepancy theory. Both Lawler and Locke placed the work of Herzberg and his colleagues into a separate category: two-factor theory by Lawler and content theory by Locke.

Campbell *et al.*[11] divided job satisfaction theories into two main categories, (a) mechanical or process theories and (b) substantive or content theories. The first category attempts to explain and describe those variables (for example, needs or rewards) that interact with the characteristics of the job to produce job satisfaction. Examples of this group of theories include Equity or Social Comparison Theory, Reference Group Theory, and Need and Value Fulfilment Theory. Content theories, by contrast, are concerned with identifying those factors within an individual or her environment that influences job satisfaction. In other words, they seek to identify what specific factors or things cause people to be satisfied. Maslow's[12] Needs Hierarchy Theory and Herzberg's[13] Two-Factor Theory (Motivator-Hygiene Theory) are examples of content theories. For the purposes of this chapter the classification offered by Jayaratne will be used to provide a summary of the major theories of job satisfaction.

3.3.1 Expectancy Theories

This group of theories suggests that an individual's job satisfaction is determined by the discrepancy between what an individual expects from a job and what that individual actually receives. In most formulations of this theory, that which is

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[11] J.P. Campbell, M.D. Dunnette, E.E. Lawler, and K.E. Weick, Managerial Behaviour, Performance, and Effectiveness, 1970.

[12] A.H. Maslow, "A Theory of Human Motivation," Psychological Review 50: (1943): p. 370-396.

[13] F. Herzberg, Work and the Nature of Man (Cleveland: World Publishing Co., 1966).

received is regarded as having some tangible value or intrinsic value. For example, Vroom[14] discussed two types of expectancies: (a) the belief that effort will lead to good performance and (b) the expectation that good performance will lead to rewards. Due to the emphasis on discrepancy theory, some authors suggested distinguishing between 'discrepancy theory' and 'fulfilment theory'. The basic premise of fulfilment theory is the extent to which an individual's needs are satisfied. Locke[15] recommended distinguishing between *expectancies* (what is expected from the job and what is actually received), *needs* (need theory states that individuals have certain physiological and psychological requirements or needs that may be fulfilled through work), and *values* (the extent to which work provides an individual with what she wants, desires or values).

Similarly, Lawler[16] reported three different approaches to the study of expectancy: "the first looks at what people want, the second at what people feel they should receive, and the third at what people expect to receive". Examined in this way, accurate representations of job satisfaction would require estimates of discrepancy between (a) what the person receives and wants (values) (b) receives and needs and (c) receives and expects. Thus, a person's overall job satisfaction could be established by summing these three facets of discrepancies.

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[14] V.H. Vroom, V.H. Work and Motivation (New York: Wiley, 1964).

[15] E.A. Locke, "The Nature and Causes of Job Satisfaction," in Handbook of Industrial and Organisational Psychology, ed. M.D. Dunnette p. 1302.

[16] E.E. Lawler, Motivation in Work Organisations (Monterey, California: Brooks/Cole Publishers, 1973).

3.3.2 Two-Factor Theory

Two-Factor or (motivator-hygiene) theory was developed by Herzberg, Mausner, & Snyderman.[17] According to this theory people have two main types of needs. The first was labelled "hygiene needs", while the second set of needs was called "motivator needs". Herzberg *et al.* suggested that different types of rewards were responsible for satisfying these two types of needs. Hygiene needs are fulfilled by conditions known as hygiene factors or disssatisfiers. These hygiene factors include supervision, interpersonal relations, physical working conditions, salary, company policies and administrative practices, benefits and job security. These factors are all related to the context or environment within which the job exists and are therefore called context factors. When these factors are unfavourable, the result is job dissatisfaction. On the other hand, motivator needs are fulfilled by motivator factors or satisfiers. Motivator factors include achievement, recognition, work itself, responsibility, advancement and growth. These motivator factors are concerned with the nature of the work itself and are known as content factors. So, according to the theory job satisfaction is achieved when motivator factors are fulfilled. Thus, the theory became known as two-factor theory.

Herzberg *et al.* then went on to propose what is regarded as the most controversial feature of his theory. They suggested that when a job offers a substantial amount of content factors, the worker would feel satisfied. If, however, these content factors are absent from a job the worker will not become dissatisfied but rather feel indifferent or neutral. Conversely, when a job offers a large amount of context factors, the worker will not feel satisfied but will feel indifferent or neutral towards the job.

[17] F. Herzberg, B. Mausner, and B.B. Snyderman, The Motivation to Work (New York: Wiley, 1959).

Nevertheless, when these context factors are absent from a job the worker will definitely become dissatisfied.

Two-Factor theory has been criticised on several counts. One major criticism relates to the method of data collection. Herzberg *et al.* conducted interviews and assumed that participants would be honest about the conditions that made them satisfied or dissatisfied with their jobs. When an employee gives a favourable account of a work situation it is quite possible that she or he will attribute it to her or his own accomplishments (content factors) rather than to the efforts of others. Conversely, in reporting an unpleasant work experience an employee is more likely to report that it occurred as a result of circumstances beyond her control (context factors) rather than accept the blame herself.[18,19]

A second factor that has contributed to the criticism of two-factor theory is that Herzberg *et al.* developed the theory solely on the basis of the work experience of samples of accountants and engineers. This has led to difficulties in replicating their results in a broader context. This of course is true of any theory that is based on a relatively narrow sample of the working population.[20,21] Another criticism is that Herzberg *et al.* did not use consistent language when describing their theory. On some occasions they reported that collectively, motivators were more likely to have an effect on satisfaction rather than dissatisfaction, while hygiene factors had a stronger impact on dissatisfaction than on satisfaction. On other occasions, their remarks

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[18] F.E. Saal, and P.A. Knight, Industrial Organisational Psychology: Science and Practice, p. 283.

[19] P.M. Muchinsky, Psychology Applied to Work: An Introduction to Industrial Psychology, p. 295.

[20] F.E. Saal, and P.A. Knight, Industrial Organisational Psychology: Science and Practice, p. 283.

[21] M.M. Gruneberg, Understanding Job Satisfaction, p. 12.

about their theory were rather strict – that only motivators were responsible for satisfaction and that only hygiene factors can lead to dissatisfaction.[22]

Reactions to Two-Factor theory are mixed. Some evaluations are negative, with authors such as McCormick and Ilgen [23] rejecting it. Others, such as Landy and Trumbo,[24] are more positive about it. Despite its deficiencies, two-factor theory has made a contribution to the research on job satisfaction. Because of Herzberg's work no one can ignore the importance of examining the various characteristics of the work environment in trying to understand job satisfaction. In addition, this work describes what people consider to be satisfying or dissatisfying about their jobs.[25,26]

Writing about Two-Factor theory, Jayaratne[27] makes the following comment:

> Despite heavy criticism, the two-factor theory remains a mainstay in the job satisfaction literature. The theory provides an important distinction between physical and psychological needs, and ties work to psychological well-being and growth by emphasising the idea that job satisfaction is associated with the nature of work. This theory cannot, and should not, be summarily dismissed.[28]

While few nursing studies reported that they had tested Two-Factor theory, some did report using the principles of this theory as a framework to guide research studies

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[22] N. King, "Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction," Psychological Bulletin 74 (1970): p. 18-31.

[23] E.J. McCormick, and D.R. Ilgen, Industrial Psychology 7th ed., (Englewood Cliffs, NJ: Prentice Hall, 1980), p. 274-277.

[24] F.J. Landy, and D.A. Trumbo, Psychology of Work Behaviour (Pacific Grove, CA.: Brooks/Cole, 1980).

[25] M.M. Gruneberg, Understanding Job Satisfaction, p. 18.

[26] F.E. Saal, and P.A. Knight, Industrial Organisational Psychology: Science and Practice, p. 283.

[27] S. Jayaratne, The Antecedents, Consequences, and Correlates of Job Satisfaction, p. 114.

[28] Ibid.

examining job satisfaction among nurses. Koelbel, Fuller and Misener[29] used two-factor theory to investigate factors that contribute to satisfaction and dissatisfaction among nurse practitioners in United States of America. Williams[30] used Two-Factor theory as her theoretical framework to examine whether there was a difference in job satisfaction between nurses working in critical care units and medical and surgical units. Malik[31] also used Two-Factor theory to investigate whether there was any difference in job satisfaction levels between nurses working in intensive care units and those in coronary care units. White and Maguire[32] undertook a descriptive study to identify factors which nursing supervisors described as leading to job satisfaction and dissatisfaction. Most of these studies reported that Herzberg's two-factor theory is a useful framework for investigating job satisfaction among nurses.

3.4 Organisational Theories

As stated earlier, one purpose of this chapter is to review the literature on organisational theories in order to determine whether a theory suitable for investigating organisational climate and job satisfaction exists. Having reviewed the literature[33] it would appear that the theories most likely to be useful in exploring organisational climate are those which attempt to explain individual and

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[29] P. Koelbe, S.G. Fuller, and T.R. Misener, "An Explanatory Model of Nurse Practitioner Job Satisfaction," p. 17-24.

[30] C. Williams, "Job Satisfaction: Comparing Critical Care and Medical/Surgical Nurses," p. 104A, 104D & 104H.

[31] D.M. Malik, "Career Ladders: Position Enrichment vis-à-vis Tenure," Nursing Management 22 (1991): p. 120A-120F.

[32] C.H. White, and M.C. Maguire, "Job Satisfaction and Dissatisfaction Among Hospital Nursing Supervisors," Nursing Research 22: 1 (1973): p. 25-30.

[33] G.H. Litwin, and R.A. Stringer, Motivation and Organisational Climate, p. 30.

organisational behaviour. Furthermore, some of these theories have been evaluated in order to determine (a) the role which environmental variables such as climate play in these theories and (b) the possibility of integrating the climate concept.

Writing on *Climate and Behaviour Theory* Litwin[34] classified theory into two broad groups. The first was *Theories of Individual Behaviour* and the second was *Theories of Organisational Behaviour*. To facilitate his discussion, however, he arranged the second group of theories into four categories. These were (a) Classical Management Theories, (b) Structural Organisation Theories, (c) Design System Theory and (d) Social System Theory. For the purposes of the present study, Litwin's classification will be used to present an overview of organisational theories.

3.4.1 Theories of Individual Behaviour

There is substantial agreement among psychologists that individual behaviour theories should include (a) psychoanalytic theories, (b) stimulus-response theories, and (c) expectancy-value theories. The intention here is not to provide a description of each of these theories but rather to identify the role of environmental variables such as climate, in these theories.

With reference to psychoanalytic theories Litwin concluded that while these theories recognised and stressed the significance of "person-environment transactions" they "have not attempted to conceptualise or treat systematically the nature of environmental influences."[35] A similar conclusion can be drawn about stimulus-

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[34] G.H. Litwin, "Climate and Behaviour Theory," in Organisational Climate: Explorations of a Concept ed. R. Tagiuri and G.H. Litwin (Boston: Division of Research Graduate School of Business Administration Harvard University, 1968), p. 35-61.

[35] Ibid., p. 38.

response (S-R) theories. It would appear that S-R theories have excluded the influences of the total environment as vital determinants of behaviour. This deficiency has led to criticism of S-R theories and thus has restricted the application of these theories to analysing human behaviour, especially behaviour outside the laboratory. Therefore, it is doubtful that climate concepts could be integrated with S-R theory. The expectancy-value theory on the other hand showed interest in the whole person in relation to their environment. Importance was given to variables such as expectancies [36] and incentive values [37] as environmental determinants of behaviour. The analysis and measurement of these factors, however, can result in serious problems given that in any social or work situation there will be hundreds or even thousands of expectancies and incentive values. It should be noted nonetheless, that expectancy-value theories made a serious effort to consider the subjective views of the individual to their environment in studying attributes of behaviour.

3.4.2 Theories of Organisational Behaviour

Litwin[38] suggested that theories of organisational behaviour are concerned with the different aspects of behaviour of organisations, their internal structure, and the behaviour of subparts of organisations, such as departments or work groups. He further notes that the emphasis given to individual behaviour and the organisational factors that produce such behaviour varies considerably from one theory to the next.

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[36] Ibid., p 41. Expectancies are "situationally generated estimates formulated by the person concerning the probability of the consequences of instrumental acts".

[37] Ibid. Incentive values are "subjective estimates of potential rewards and punishments determined by situational circumstances".

[38] G.H. Litwin, "Climate and Behaviour Theory," in Organisational Climate: Explorations of a Concept ed. R. Tagiuri and G.H. Litwin p. 35-61.

The climate concept appears to be most relevant for understanding individual and small group behaviour.

When climate influences the behaviour of an organisation, it achieves this through its influence on individual or small group behaviour. Hence, two types of questions in relation to theories of organisational behaviour are raised by Litwin: (1) "What emphasis do the theories give to individual and small group behaviour?" (2) "To the extent that the theories do attempt to account for individual and small group behaviour, do they utilise concepts of environmental quality or climate, or could such concepts be introduced meaningfully?" To facilitate his evaluation Litwin arranged the theories of organisational behaviour into four main categories. They are (a) Classical Management Theories, (b) Structural Organisation Theories, (c) Decision System Theories, and (d) Social System Theories.

It would appear then that theories of individual behaviour have not attributed much importance to the analysis of climate. Even though this category of theories did acknowledge that behaviour is an activity of both the person and the environment, little attention was given to measuring the nature and influence of particular environments. Litwin[39] states: ".... The integration of climate concepts into these theories could be accomplished only with great difficulty." On the other hand, theories of organisational behaviour would seem to be suitable for accommodating the climate concept. Of all the theories of organisational behaviour, systems theory would appear to be the most suitable for accommodating the integration of the climate concept.

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[39] Ibid., p. 55.

So, what this review of theories has revealed is that while there are several theories that can be used to investigate job satisfaction only one theory appears to be suitable for investigating the climate concept. In addition, it would seem that a rigorously proven theory concerning organisational climate and job satisfaction does not exist. Moreover, while some nursing studies have reported using a theory mostly to examine job satisfaction, this researcher was unable to find any research studies either within the nursing or psychology literature that utilised a theory to investigate organisational climate. In view of this, theory was not tested in the present study. Instead, a tentative framework was developed and used to guide the present study.

3.5 A Tentative Framework

The literature suggests that some controversy still exists with regard to (a) measuring organisational climate, (b) relationships between climate and different facets of job satisfaction and (c) causal links between climate and outcome variables.[40,41] These controversies, however, should not prevent researchers from replicating earlier research or undertaking studies using subjects from environments or organisations that have not been extensively investigated.

The three major variables being investigated in the present research study are *Biographical Factors*, *Organisational Climate* and *Job Satisfaction*. The literature discussed in Chapter Two suggests that biographical factors may influence job

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[40] R.E. Johannesson, "Job Satisfaction and Perceptually Measured Organisational Climate: Redundancy and Confusion," in New Developments in Management and Organisational Theory Proceedings of the Eight Annual Conference, ed. M.W.Frey (Williamsburg, Virginia: Eastern Academy of Management 1971), p. 27-37.

[41] R.D. Pritchard, and B.W. Karasick, "The Effects of Organisational Climate on Managerial Job Performance and Job Satisfaction," p. 126-146.

satisfaction and that there is an association between organisational climate and job satisfaction. It must be said, however, that in some instances these results were mixed or the correlations weak. The present research study is concerned with the feasibility of predicting nurses' job satisfaction based on (1) knowledge of the organisational climate within which the nurse works and (2) knowledge of biographical factors. This study is not attempting to establish causality. This can only be achieved by employing experimental designs and the rigorous development of behavioural theory.[42] Such a theory of organisational climate and job satisfaction does not exist at the present time.

Given that a theory of organisational climate and job satisfaction does not exist, theory was not tested in the present study. Instead, a tentative framework is proposed. This framework was constructed on the basis of (a) assumptions acquired from previous research and (b) the principles of Two-Factor theory. The present study assumes that in exploring the job satisfaction of nurses both biographical factors and organisational climate factors are important and therefore must be investigated simultaneously. Based on these assumptions a framework showing the relationships between the two independent variables and the dependent variable was constructed. The structure of the framework is discussed in the next section.

3.5.1 Constructing the Framework: Use of A Visual Model

According to Creswell[43] a useful activity in research studies is to develop a visual model so that the reader can visualise the relationships between variables. Many

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[42] H.L. Lyon, and J.M. Ivancevich, "An Exploratory Investigation of Organisational Climate and Job Satisfaction in a Hospital," Academy of Management Journal 17 (1974) p. 635-648.

[43] J.W. Creswell, Research Design: Qualitative and Quantitative Approaches, p. 84.

classifications of variables exist. The most important and useful method of classifying variables is as independent and dependent.[44] The terms "independent variable" and "dependent variable" have their roots in mathematics, where X is normally the independent variable and Y the dependent variable. The dependent variable is the variable which is predicted to while the independent variable is the variable which is predicted from. The dependent variable Y is the presumed effect, which can vary as changes in the independent variable X occur. In the present research study, the dependent variable is job satisfaction while the independent variables are organisational climate and biographical factors. The dependent variable is usually the condition the researcher is trying to understand and investigate. Therefore, this study sets out to explain job satisfaction among nurses by examining independent variables such as organisational climate and biographical factors.

Figure 2 offers a visual model of the variables being investigated in the present study. As can be seen, the dependent variable is positioned on the right in the figure while the independent variables are on the left. One-way arrows leading from each independent variable to the variable dependent on it are used. The curved line used to connect X_1 and X_2 is used to illustrate unanalysed correlations between variables. This simple model was then used to develop the study's framework.

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[44] F.N. Kerlinger, Foundations of Behavioural Research, p. 35.

Visual Model of Relationships Between the Independent and Dependent Variables

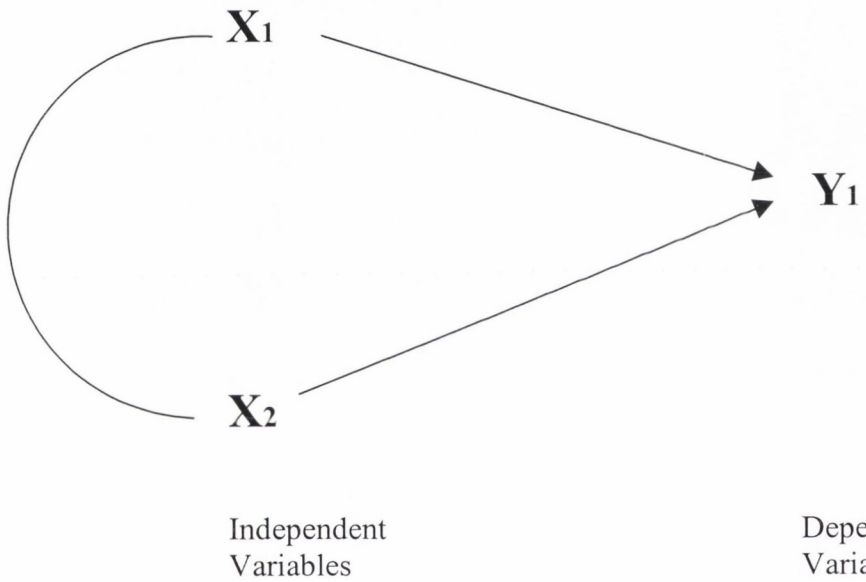

Figure: 2

Key:

X1 = Organisational Climate

X2 = Biographical Factors

Y1 = Job Satisfaction

3.5.2 Constructing the Framework: Expanding the Visual Model

The visual model as demonstrated in Figure 2 illustrates in a very basic way the relationships between the independent and dependent variables. Therefore, it was important to expand this model further in order to develop the study's framework. The framework was developed in two parts. Part one of the framework as depicted in Figure 3 was developed from assumptions based on previous research. Through the use of these assumptions this researcher was able to predict outcomes between the independent and dependent variables. As shown, the two independent variables Organisational Climate and Biographical Factors are positioned on the left of Figure 3 while the dependent variable Job Satisfaction is on the right of the figure.

As demonstrated in Figure 3, both independent variables and the dependent variable are made up of several components or variables. The independent variables are labelled X1 and X2 while the dependent variable is labelled Y1. Arrows connect each independent variable to the dependent variable on the right. A positive or negative symbol is placed along each arrow between the organisational climate components and job satisfaction and represents the nature of the relationship between each component and the dependent variable. For example, the arrow leading from Esprit (a component of organisational climate) to job satisfaction predicts a positive correlation. The arrows connecting biographical factors to the dependent variable contain the term 'some difference'. This term is used to predict that there are differences between job satisfaction scores and each of the seven biographical factors. For example, the framework is predicting that there will be a difference between the job satisfaction scores for female and male nurses. The findings obtained from the analysis of the data will then be used to amend and confirm the usefulness of the framework in investigating job satisfaction among nurses.

Part two of the framework as depicted in Figure 4 was developed using a conceptual map of Two-Factor theory to demonstrate the similarities between this theory and the components of the Index of Work Satisfaction (IWS). With regard to incorporating the principles of Two-Factor theory into the framework some explanations are needed. Firstly, the decision to use this theory is based on the results of a focus group interview[45] which was undertaken during the early stages of the present study. The findings from the focus group suggest that job satisfaction is achieved when factors associated with the actual job itself are met and that job dissatisfaction occurs when factors such as pay, security and physical working conditions are inadequate. These findings would appear to be similar to the principles of Two-Factor theory. Secondly, the author of the Index of Work Satisfaction (IWS) suggested that Two-Factor theory could be used to interpret the findings from the IWS. Thirdly, a review of the literature revealed that Two-Factor theory was suitable for investigating job satisfaction among nurses. As a result, this theory was incorporated into the study's framework. It is important to stress however, that Two-Factor theory will not be tested. Its use within the framework will be confined to interpreting the findings from the Index of Work Satisfaction (IWS). Part two of the framework is explained in the next section.

As shown in Figure 4, part two of the framework is presented in two sections. Section A summarises Two-Factor theory and its relationship to job satisfaction and dissatisfaction. Section B shows the similarities between the components of the Index of Work Satisfaction (IWS) and Two-Factor theory. Two-Factor theory proposed two types of work variables. These are intrinsic or content factors (also known as

[45] A focus group interview was undertaken during the early stages of the present study. The purpose of the focus group was to use it developmentally, wherein the findings would be used to assist in the planning of the questionnaire survey. The focus group interview is addressed fully in Chapter 4.

motivators) and extrinsic or context factors (also known as hygiene factors). According to this theory, intrinsic or content factors when present in the work situation lead to job satisfaction. When these factors are not present, however, the worker is not dissatisfied because hygiene factors are responsible for job dissatisfaction. Instead, the worker will feel neutral or indifferent. Alternatively, when extrinsic or context factors are inadequate in the working situation the employee will feel dissatisfied, but when adequate, the employee will not feel satisfied because only intrinsic factors produce job satisfaction. Instead, the employee will feel neutral or indifferent. So, according to Two-Factor theory, to bring about job satisfaction intrinsic or content factors must be fulfilled, and to decrease job dissatisfaction issues regarding extrinsic or context factors must be resolved.

Section B in Figure 4, shows the components of the Index of Work Satisfaction (IWS). These components fall into a similar arrangement as that used in Two-Factor theory. As demonstrated the IWS components of Autonomy, Task Requirements, and Professional Status are similar to the intrinsic factors described in Two-Factor theory while Organisational Polices, Interaction, and Pay are similar to the context factors. Two-Factor theory will not be tested. Its use within the framework will be confined to interpreting the findings on job satisfaction.

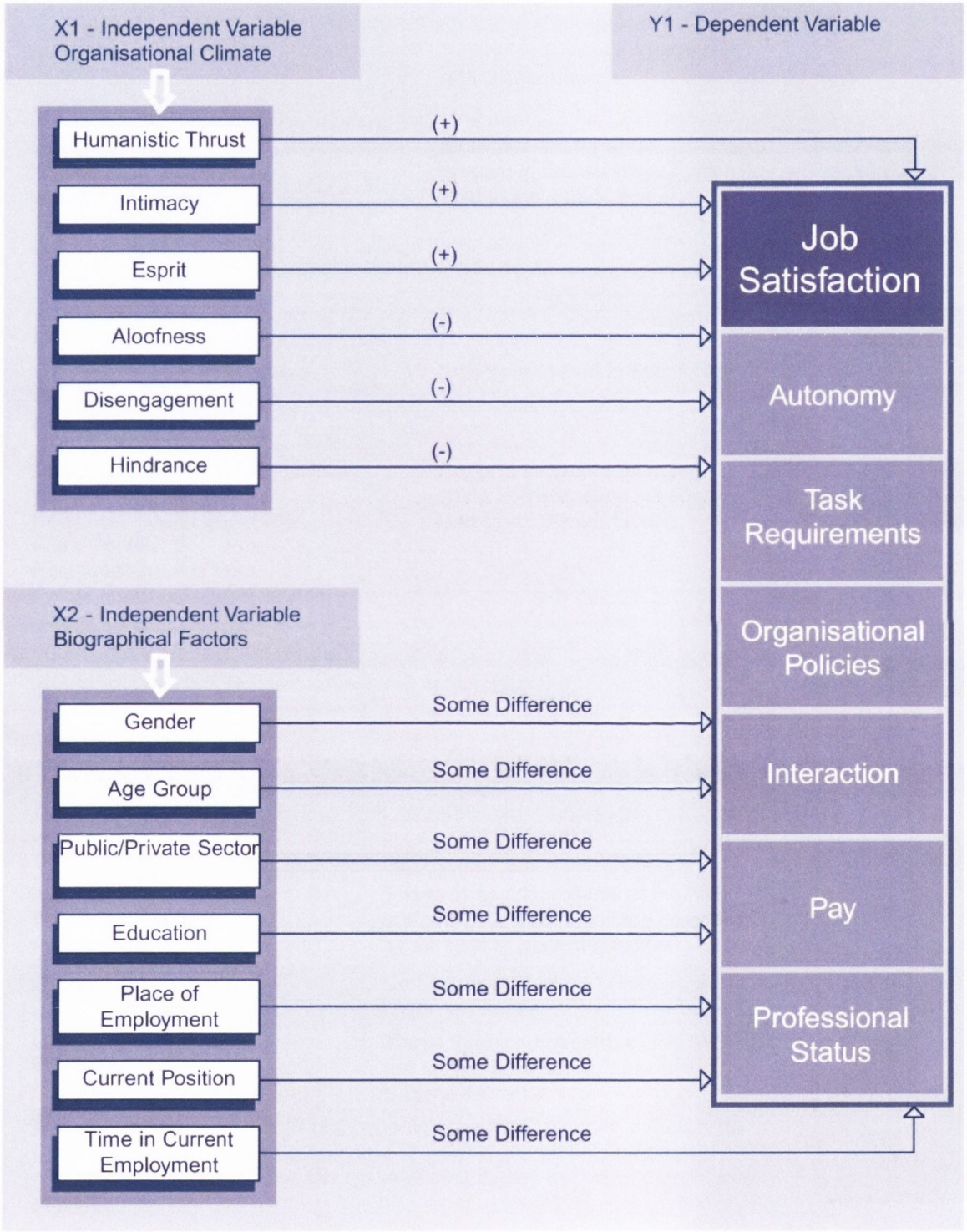
Framework – Part One
Predicted Outcomes Between the
Independent and Dependent Variables
X1 - Independent Variable
Organisational Climate
Y1 - Dependent Variable
Humanistic Thrust
Intimacy
Esprit
Aloofness
Disengagement
Hindrance
(+)
(+)
(+)
(-)
(-)
(-)
Job Satisfaction
Autonomy
Task Requirements
Organisational Policies
Interaction
Pay
Professional Status
X2 - Independent Variable
Biographical Factors
Gender
Age Group
Public/Private Sector
Education
Place of Employment
Current Position
Time in Current Employment
Some Difference

Figure 3

Framework – Part Two
Conceptual Map Showing Similarities Between Two-Factor Theory and IWS Components

Section A

Herzberg's Two-Factor Theory

Intrinsic or Content Factors also known as Motivator Factors	Difference Between Satisfaction and Dissatisfaction	
Achievement Recognition Interest of the Work Responsibility Advancement Growth	Motivator factors when present in the working situation lead to job satisfaction.	⇨ Job Satisfaction
When Motivator factors are not present the worker is not dissatisfied because hygiene factors are responsible for job dissatisfaction. Instead the worker feels neutral or indifferent.		⇨ Neutral State
Extrinsic or Context Factors also known as Hygiene Factors	Difference Between Satisfaction and Dissatisfaction	
Company Policy and Administration Supervision Relationship with Supervisor Work Conditions Relationship with Peers Relationship with Subordinates Salary	Hygiene factors when inadequate in the working situation lead to job dissatisfaction.	⇨ Job Dissatisfaction
When Hygiene factors are adequate the worker is not satisfied as motivators are responsible for job satisfaction. Instead the worker feels neutral or indifferent.		⇨ Neutral State

Section B

Similarities Between IWS Components and Motivator and Hygiene Factors as Described by Two-Factor Theory

IWS Components	Components Similar to Herzberg's Motivators	
Autonomy Task Requirements Professional Status	These three components of the IWS are similar to what Herzberg described as intrinsic or motivator factors.	
IWS Components	Components Similar to Herzberg's Hygiene Factors	
Organisational Policies Interaction Pay	These three components of the IWS are similar to Herzberg's extrinsic or hygiene factors.	
The scores from the six IWS components are ranked in order to determine (a) which components are considered to be important to job satisfaction and (b) which components make the greatest contribution to nurses' current level of job satisfaction.		IWS can Indicate which components are (1) Important to nurses' Job Satisfaction and (2) Contribute to their current Level of Job Satisfaction

Figure 4.

Figure 4 forms part two of the framework developed by this researcher. It will be used only to interpret the findings from the IWS questionnaire.

3.6 Summary and Conclusion

This chapter began by emphasising the importance of theory in research before moving on to present a brief overview of the current theoretical underpinnings of job satisfaction. Next, the chapter presented a brief review of the literature on organisational theories. This review of theories indicated that while there are several theories that can be used to investigate job satisfaction only one theory appears to be suitable for investigating organisational climate. Furthermore, it would seem that a rigorously proven theory concerning organisational climate and job satisfaction does not exist. While some nursing studies have reported the use of theory in particular, Two-Factor theory, as a framework for investigating job satisfaction, this researcher was unable to find any research studies either within the nursing or psychology literature that utilised a theory to investigate organisational climate.

This lack of a theory concerning organisational climate and job satisfaction meant that the testing of theory was not feasible at the present time. What was proposed instead was a tentative framework based on (a) assumptions acquired from previous research and (b) the principles of Two-Factor theory. The framework was developed in two parts. Part one was constructed on the basis of assumptions acquired from the literature and will be tested in order to determine its usefulness in examining job satisfaction among nurses. Part two utilised a conceptual map of Two-Factor theory to show the similarities between this theory and the IWS components. The principles of Two-Factor theory were included in the framework because of (a) the outcome of a focus group interview during the early stages of the present study and (b) some similarities between Two-Factor theory and the components of the IWS which was used to measure job satisfaction. Two-factor theory will not be tested. Its use within the framework will be confined to interpreting the findings obtained from the Index of

Work Satisfaction (IWS). The next chapter entitled "Methodology" gives a detailed account of how the present study was planned and executed.

CHAPTER FOUR

METHODOLOGY

4.1 Introduction

Chapter Two presented an overview of the literature on job satisfaction and organisational climate and concluded by identifying the main deficiencies that needed to be addressed through further research. Chapter Three discussed the theoretical underpinnings of job satisfaction and organisational climate and presented a framework that predicted the outcomes between the independent and dependent variables under investigation in the present study. This chapter essentially informs the reader how the present research study was planned and implemented. First, the terms: methodology and methods are explained.

According to Sarantakos,[1] "the conflict about which methodology is the best choice for a researcher is as old as the methodologies themselves". Quantitative researchers emphasise the limitations of qualitative research and often argue that quantitative methods are better than qualitative methods. Similarly, qualitative researchers argue that their methods are the most appropriate form of research.[2] It would appear then, that there is no right methodology. Both quantitative and qualitative methodologies are used by social scientists and the decision to use one methodology over another is dependent upon the purpose of the research, available resources, and the type of information required by the researcher.

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[1] S. Sarantakos, Social Research, p. 55.

[2] Ibid., p. 56

Precisely what constitutes a methodology is a contentious issue. It would appear that methodology could be defined in one of two ways. In one form methodology is regarded as the research model used by a researcher in a particular project, and includes the knowledge relevant to the subject, the research methods in use and the framework used in a specific context. Defined in this manner, every research project will have a distinct methodology. This means that there are as many methodologies as there are projects, as most research projects are unique in approach.

A second definition regards methodology in a theoretical context, with unique theoretical principles. In this sense, a methodology should offer research principles that relate it to a specific paradigm, which can be translated into clear guidelines on acceptable research practices. In other words, methodology is determined not by a research model but by principles of research connected to a paradigm. The methodologies that emerge from this definition are the quantitative methodology and the qualitative methodology.[3] Research methods on the other hand are regarded as the tools that generate data and analysis. The same methods can be used in any methodology (for example interviews) and a given methodology can use several different methods.[4] In general, however, although methods are a-methodological, their content and structure are directed by the underlying methodology. For example, interviews can be used in either a quantitative or a qualitative methodology, but the former employs a standardised interview, while the latter uses an unstructured, open or in-depth interview.

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[3] Ibid., p. 32.

[4] Ibid., p. 33.

Quantitative methodology is based on positivist philosophy and emphasises highly structured techniques for data collection, quantitative measurement, experimental design, and statistical analysis. By contrast, qualitative methodology is associated with a number of theoretical bases but was derived most directly from anthropology. The philosophy underpinning qualitative methodology relies on qualitative data, naturalistic enquiry, and in-depth description obtained through contact with participants.[5] Considerable disagreement exists about which research methodology and paradigm are appropriate for conducting research. An overview of this debate is presented in section 4.2 of this chapter.

The remainder of the chapter contains all the relevant information regarding the planning and implementation of the present study. While working on an early draft, it became clear that a substantial number of issues had to be considered and reported in this chapter. In an attempt to avoid confusion and omissions, a map of the research methodology[6] was developed. Not only did this map provide a visual picture of the content of the chapter but it was used also as a checklist for tracking progress. A copy of this map can be found on pages 146-147.

As a preliminary, this chapter provides an overview of the major research paradigms. Next, it discusses the research design chosen for the present study and offers a rationale for its selection. The chapter then moves on to describe the population, the sample and sampling techniques used for both the focus group interview and the

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[5] M.Q. Patton, Utilization-Focused Evaluation 2nd ed., (Beverley Hills, California: SAGE Publications, Inc. 1986), p. 182.

[6] Map of Research Methodology can be found on page 146-147.

questionnaire survey. In addition, information about the criteria for inclusion in the study, the sample size and the procedures used for contacting the samples are given. The data collection procedures are explained and the advantages and disadvantages of using interviews and questionnaires are outlined. Next, the measurement instruments are described and their selection justified. The chapter then moves on to discuss data entry procedures, outcome of the pilot study, data analysis and presentation procedures.

Ethical considerations are important in every research study. For this reason, an ethical framework was constructed for use during all stages of this study. The chapter concludes with a detailed report on the focus group interview. The reader is reminded that the focus group interview was used developmentally. That is, the findings from the focus group were used to assist this researcher in selecting a theory that could be incorporated into the study's framework. Hence the decision to include the report on the focus group interview in this chapter rather than in Chapter Five.

Map of Research Methodology

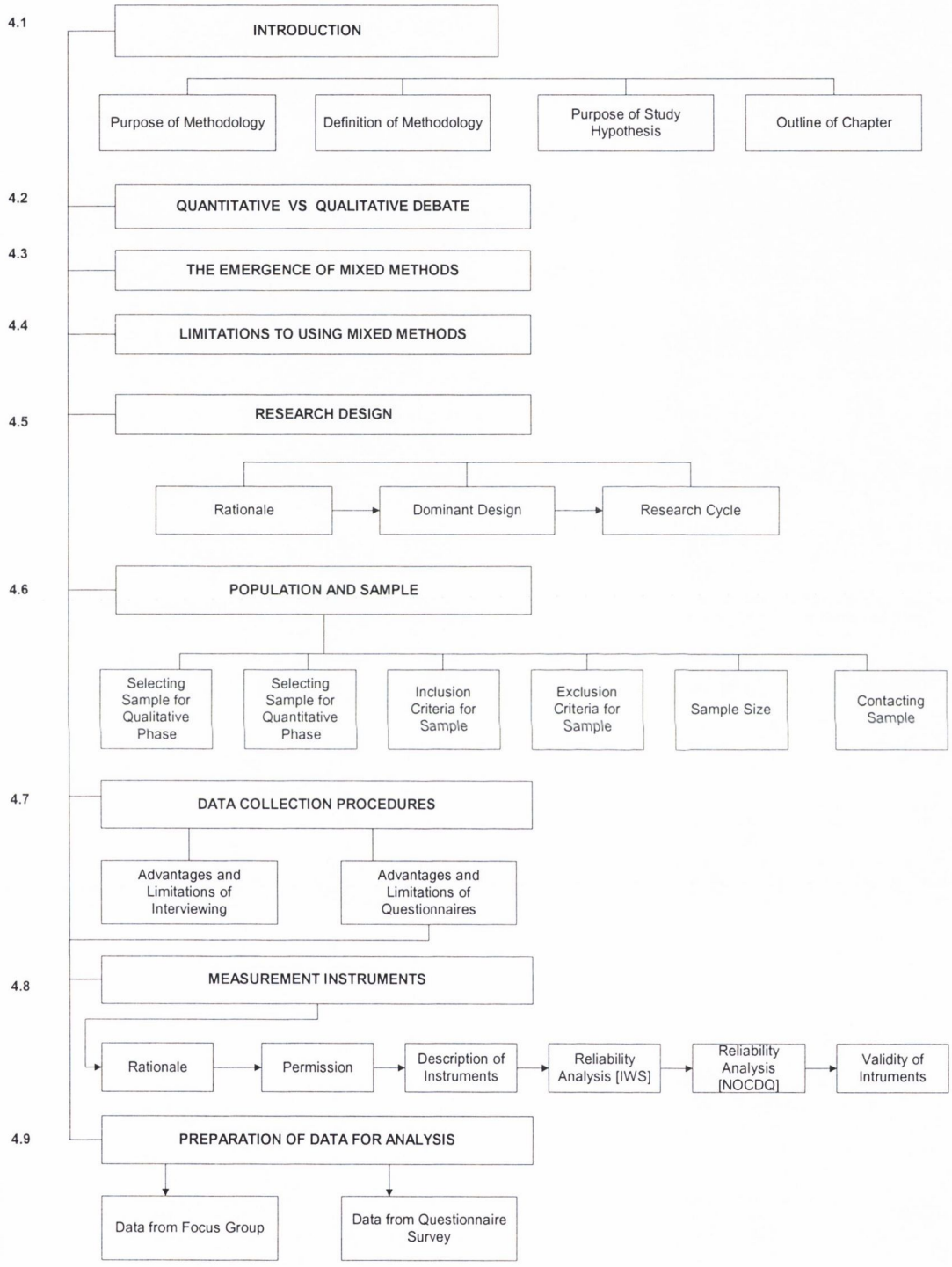

Figure: 5

Map of Research Methodology continued

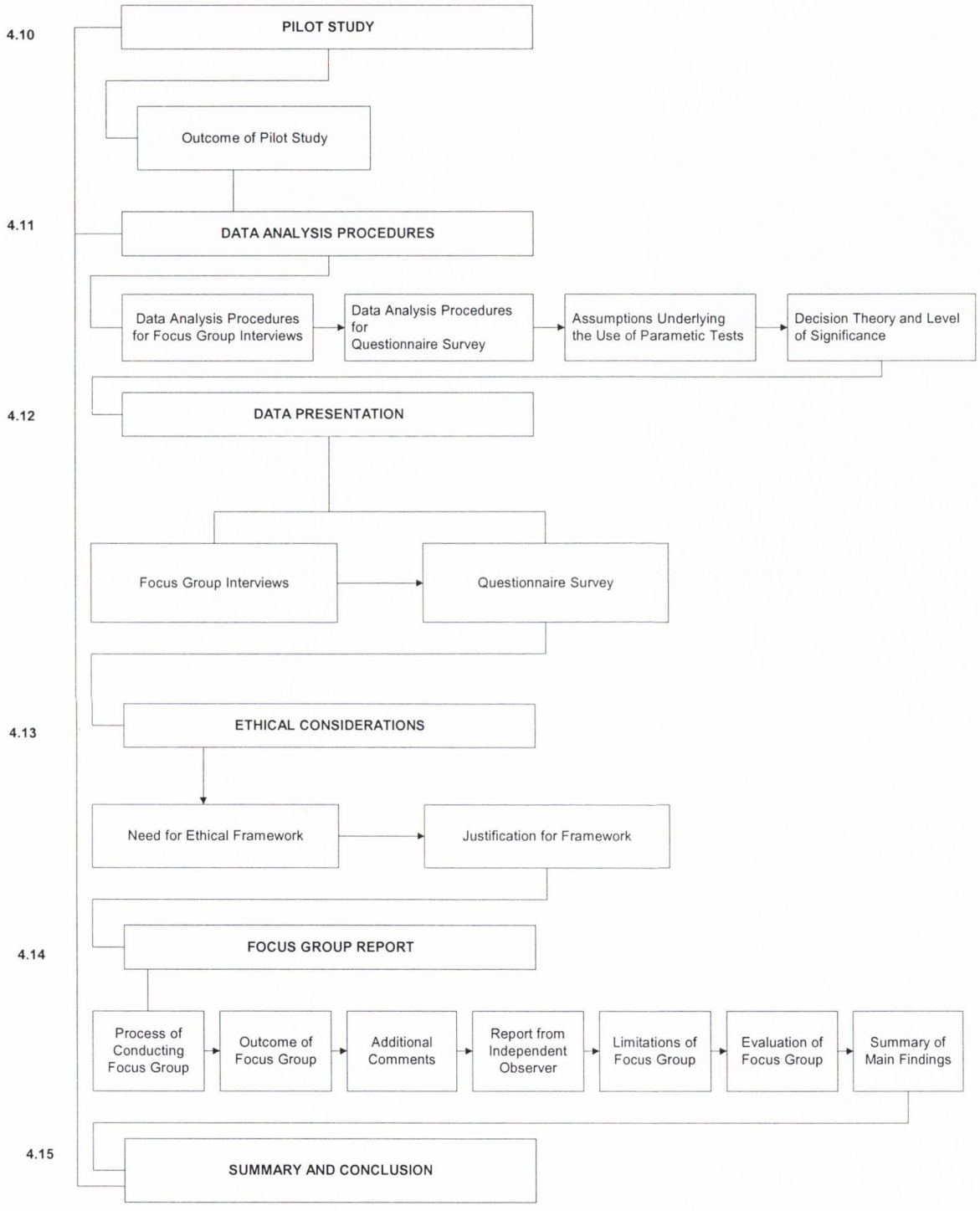

Figure: 5 continued

4.1.1 Purpose of Study

Before addressing the practical issues concerned with planning and executing the present study, it is important to remind the reader of the purposes of the study and the hypotheses formulated for testing. The research purpose states the specific aims or intent of a study and should capture the essence of the study. For this reason the purposes are restated in this chapter. The present study has several purposes. Firstly, it seeks to determine the current level of job satisfaction among nurses in Ireland and to undertake a comparative analysis of these findings with other international studies. Secondly, it hopes to identify which of the IWS components made the greatest contribution to nurses' current level of job satisfaction (Part B of IWS). Such information will contribute to a better understanding of the variables responsible for job satisfaction among nurses in Ireland. Thirdly, it seeks to establish the difference between (a) the IWS components that nurses regard as being important to their job satisfaction (Part A of IWS) and (b) the IWS components that are more likely to contribute to nurses' current level of job satisfaction (Part B of IWS).

Fourthly, this study seeks to determine nurses' perceptions of organisational climate. Fifthly, the present study hopes to establish the nature of the relationships between (a) organisational climate components and job satisfaction components and (b) determine how biographical factors affect job satisfaction among nurses. Sixthly, the findings from the present study will be used to confirm the usefulness of the model developed in Chapter Three. Finally, the findings from the present study will be submitted to the authors of a database that has been complied in the United States. The primary goal of this activity is to obtain information from the database that will allow this researcher to compare the findings from the present study with those of other international studies.

4.1.2 Hypotheses

Hypotheses guide a research study by offering directions to its planning and operation and for this reason are included in this chapter. The following hypotheses were formulated for testing.

Null Hypothesis 1:	There is no significant difference in the job satisfaction scores for females and males.
Alternative Hypothesis 1:	There is a significant difference in the job satisfaction scores for females and males.
Null Hypothesis 2:	There are no differences in the job satisfaction scores for nurses in the following age groups: 18-25 years, 26-36 years, 36-45 years, 46-55 years and over 55 years.
Alternative Hypothesis 2:	There are differences in job satisfaction scores for nurses in the following age groups: 18-25 years, 26-36 years, 36-45 years, 46-55 years and over 55 years.
Null Hypothesis 3:	There is no significant difference in the job satisfaction scores for nurses working in the private and public healthcare sectors.
Alternative Hypothesis 3:	There is significant difference in the job satisfaction scores for nurses working in the private and public healthcare sectors.
Null Hypothesis 4:	There is no statistically significant difference in the job satisfaction scores for registered nurses and midwives, nurses with diplomas, and nurses with degrees.
Alternative Hypothesis 4:	There is a statistically significant difference in the job satisfaction scores for registered nurses and midwives, nurses with diplomas, and nurses with degrees.

Null Hypothesis 5:	There is no significant difference in job satisfaction scores for nurses working in a hospital environment and those working in a non-hospital environment.
Alternative Hypothesis 5:	There is a statistically significant difference in job satisfaction scores for nurses working in a hospital environment and those working in a non-hospital environment.
Null Hypothesis 6:	There is no significant difference in job satisfaction scores for student nurses, qualified clinical nurses and non-clinical nurses.
Alternative Hypothesis 6:	There is a significant difference in job satisfaction scores for student nurses, qualified clinical nurses and non-clinical nurses.
Null Hypothesis 7	There is no significant difference in job satisfaction scores for nurses who have been working in their current place of employment for less than five years and those who have been working in their current place of employment for over five years.
Alternative Hypothesis 7	There is a significant difference in job satisfaction scores for nurses who have been working in their current place of employment for less than five years and those who have been working in their current place of employment for over five years.
Null Hypothesis 8	There are no significant positive or negative correlations between organisational climate components and job satisfactions components.
Alternative Hypothesis 8	There are significant positive and negative correlations between organisational climate components and job satisfaction components.
Null Hypothesis 9	There are no significant positive or negative correlations between organisational climate components and total job satisfaction.

Alternative Hypothesis 9	There are significant positive and negative correlations between organisational climate components and total job satisfaction.

4.2 The Quantitative Versus Qualitative Debate

Throughout the past thirty years there has been several debates or "wars" in the social and behavioural sciences regarding the superiority of either of the two major social science paradigms or models.[7,8,9] These two paradigms are known as the positivist/empiricist approach and the constructivist/phenomenological orientation.[10] Quantitative methods are underpinned by the positivist paradigm while the constructivist paradigm underlies qualitative methods.[11,12] Consequently, the debate between these two paradigms has sometimes been referred to as the quantitative-qualitative debate.[13]

It would appear that the debate between quantitative and qualitative methodology is not simply a disagreement about the strengths or weaknesses of quantitative and qualitative methodology but a more fundamental conflict between the methodological

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[7] L. Datta, "Paradigm Wars: A Basis for Peaceful Coexistence and Beyond," in The Qualitative-Quantitative Debate: New Perspectives, ed. C.S. Reichardt and S.F.Rallis (San Francisco: Jossey-Bass, 1994), p. 53-70.

[8] N. Gage, "The Paradigm Wars and their Aftermath: A Historical Sketch of Research and Teaching Since 1989," Educational Researcher 18 (1989): p. 4-10.

[9] E.G. Guba, and Y.S. Lincoln, "Competing Paradigms in Qualitative Research," in Handbook of Qualitative Research, ed. N.K. Denzin and Y.S. Lincoln (Thousand Oaks, CA: Sage, 1994), p. 105-117.

[10] Ibid.

[11] Ibid.

[12] K.R. Howe, "Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas Die Hard," Educational Researcher 17 (1988): p. 10-16.

[13] C.S. Reichardt, and S.F. Rallis, "Qualitative and Quantitative Inquires are not Incompatible: A Call for a New Partnership," in The Qualitative-Quantitative Debate: New Perspectives, ed. C.S. Reichardt and S.F. Rallis (San Francisco: Jossey-Bass, 1994), p. 85-92.

paradigms. According to this perspective, each of the two research approaches is associated with a distinct and unique paradigm and it is these two paradigms that are incompatible.[14] Patton[15] offers the following definition of paradigm:

> A paradigm is a world-view, a general perspective, a way of breaking down the complexity of the real world. As such, paradigms are deeply embedded in the socialization of adherents and practitioners: Paradigms tell what is important, legitimate, and reasonable.[16]

Briefly, the quantitative paradigm is reported as subscribing to a "positivistic, deductive, particularistic, objective, outcome-oriented and natural science world view" while the qualitative paradigm is viewed as a "phenomenological, inductive, holistic, subjective, process-oriented and social anthropological world view"[17]. This classification of paradigms according to Cook & Reichardt[18] is based on two assumptions. First, it is assumed that a particular research methodology is linked to a paradigm and that adherence to a paradigm provides the appropriate and only means of choosing a research methodology. This of course is because each paradigm views the world in a different way therefore researchers must use different methods of investigation. If for example a research study is more closely associated to the principles of paradigm A than the principles of paradigm B then it follows that researchers should automatically choose the research methodology that is associated with paradigm A. Second, the quantitative and qualitative paradigms are assumed to

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[14] T.D. Cook, and C.S. Reichardt, Qualitative and Quantitative Methods in Evaluation Research (Beverley Hills, California: SAGE Publications, Inc., 1979), p. 9.

[15] M.Q. Patton, Utilization-Focused Evaluation, p. 181.

[16] Ibid.

[17] T.D. Cook, and C.S. Reichardt, Qualitative and Quantitative Methods in Evaluation Research, p. 9-10.

[18] Ibid., p. 10.

be rigid which means that the only choice available to the researcher is the choice between them.

Cook & Reichardt[19] argued that because the characteristics of a paradigm are not inherently linked to either quantitative or qualitative methods then both these method types could be associated with the characteristics of either the quantitative or qualitative paradigm. These authors further suggest that the choice of a research methodology should to some extent depend on the nature of the research itself.

From the field of education, authors such as Lincoln and Guba[20] have argued that the tenets of positivism and the quantitative methodology accompanying it have been discredited. These authors further suggest that constructivism and qualitative methods are now moving into a dominant position. Smith and Heshusius[21] also from the field of education, have argued that it is time to close the debate between the two paradigms, saying that any reference to them as incompatible makes any further discussion unhelpful.

4.3 The Emergence of Mixed Methods

Tashakkori & Teddlie[22] suggest that there have been numerous attempts to close the debate between the two major paradigms (quantitative and qualitative). Some theorists, referred to as "pacifists", have declared that quantitative and qualitative

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[19] Ibid., p. 16.

[20] Y.S. Lincoln, and E.G. Guba, Naturalistic Inquiry (Beverly Hills, CA.: Sage, 1985).

[21] J.K. Smith, and L. Heshusius, "Closing down the Conversation: The End of the Quantitative-Qualitative Debate among Educational Researchers," Educational Researcher 15 (1986): p. 4-12.

[22] A. Tashakkori, and C. Teddlie, Mixed Methodology: Combining Qualitative and Quantitative Approaches (London: Sage Publication Ltd., 1998), p. 4.

approaches are indeed compatible. This "compatibility theory", which is presented as a different paradigm is referred to by some as pragmatism. These pragmatically oriented theorists now use the term "mixed methods" or mixed methodology, which combines both quantitative and qualitative approaches into the methodology of a single study or multi-phased study.[23] Pragmatism appears to be the best paradigm for justifying the use of mixed method [24] and mixed model studies.[25] Pragmatism is appealing for three reasons: (a) it offers a paradigm that advocates the use of mixed method and mixed model designs, (b) it avoids the use of metaphysical concepts, and (c) it offers a practical research philosophy for researchers.

Datta,[26] writing within the evaluation discipline, has suggested the following reasons for "coexistence" between the quantitative and qualitative methodologies and their underlying paradigms. First, both paradigms have been used for years. Quantitative, qualitative and mixed-model evaluations have coexisted for several years. Second, many evaluators and researchers have advocated the use of both paradigms. Theorists from both the quantitative and qualitative camps have encouraged the use of both approaches in the same evaluation or research study. Third, funding agencies have supported both paradigms. Practices within funding agencies vary from time to time; sometimes the quantitative paradigm predominates, sometimes qualitative. Generally, though mixed model studies are increasing in popularity. Fourth, both paradigms have influenced policy decisions. Fifth, much has been taught by both paradigms.

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[23] Ibid., p. 5.

[24] Mixed model studies are studies that combine quantitative and qualitative approaches within different phases of the research process. The underlying paradigm is pragmatism.

[25] K.R. Howe, "Against the Quantitative-Qualitative Incompatibility Thesis or Dogmas Die Hard," Educational Researcher 17 (1988): p. 10-16.

[26] Datta, L. "Paradigm Wars: A Basis for Peaceful Coexistence and Beyond," p. 53-70.

Both paradigms have contributed to the way we think about research and evaluation. Within the discipline of evaluation, stakeholder involvement is very important and many evaluations begin by trying to understand what stakeholders consider to be the key issues. This is the work of qualitative methodologists. Standards in evaluation research also insist on methodological transparency. This suggests that the evaluator must explain how the study was conducted (for example, measures used, precautions taken to achieve quality and identifying the limitations and strengths). This is the work of quantitative methodologists.

4.4 Limitations to Using Mixed Methods

Although combining quantitative and qualitative methods are desirable and many researchers may wish to avail of them, there are a few obstacles that could deter their use. First, combining quantitative and qualitative methods can be expensive. Compared with a case study, a randomised experiment has to consider the additional cost of collecting data from a control group, while the data collection costs for a researcher using an ethnographic design are usually more expensive than a survey questionnaire. Second, researchers may not have sufficient training to use both quantitative and qualitative methods. In large-scale studies it is likely that interdisciplinary teams will be used. When members from both quantitative and qualitative camps come together to work on a project the relationship between the two may not always function smoothly. Third, using qualitative and quantitative methods together is very time consuming. It is possible that combining methods could result in researchers not meeting deadlines. In a large-scale survey, for example, researchers may need to distribute questionnaires a second time if the original response rate was low. In a similar vein, researchers using interview technique will need sufficient time

to plan and conduct the interviews. Unless researchers are able to undertake the activities of the two methods simultaneously, then it is likely that they will not have enough time to use both. Finally, it may be difficult to convince researchers to use both quantitative and qualitative method types. It is possible that researchers belonging to one or the other of the research traditions may be reluctant to "be out of vogue".[27]

From this discussion it can now be assumed that the paradigm wars are over, as it has been superseded by pragmatism. The calming of the strained relations between the positivist and constructivist camps has had a positive effect on the development of research within the social and behavioural sciences, as most major areas of research now use multiple methods.[28] It would appear also that pragmatism is the best paradigm for justifying the use of mixed method or mixed model studies. As a consequence of these viewpoints this researcher decided to use a dominant-less dominant mixed method design for this study. The next section gives a description of this design and justifies its selection.

4.5 Research Design

The design chosen for the present research study was a dominant-less dominant mixed method design. Mixed method designs were initially defined under the general heading of *method triangulation*. The logic of triangulation is based on the assumption that any bias within certain data sources, investigator and method could

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[27] T.D. Cook, and C.S. Reichardt, Qualitative and Quantitative Methods in Evaluation Research, p. 25-26.

[28] J. Brewer, and A. Hunter, Multimethod Research: A Synthesis of Styles (Newbury Park, CA.: Sage, 1989).

be reduced when used with other data sources, investigators and methods. Triangulation can be of two types: intra-method triangulation and inter-method triangulation. Intra-method triangulation (also known as within method triangulation) refers to different types of data collection techniques of the same methodology (e.g. a survey and an experiment). Inter-method triangulation (also known as between methods triangulation) uses two or more techniques of different methodological origin (e.g. a survey and in-depth interviews). Creswell,[29] however, pointed out that mixed method designs have uses other than triangulation (defined as the convergence of results).

The term mixed method usually refers to both data collection and data analysis techniques given that the type of data collected are associated with the type of analysis used. Greene *et al.*[30] reviewed 57 mixed method studies and listed five purposes for these studies: (a) triangulation or seeking convergence of results, (b) complementary, or examining different facets of a phenomenon, (c) initiation, or discovering contradictions or fresh perspectives, (d) developmentally, or using the methods sequentially, such that the results from the first method inform the use of the second method and (e) expansion, where the mixed methods add scope and breadth to a study. In the literature several authors have attempted to produce taxonomies of mixed method designs including Creswell,[31] Greene *et al.*[32] and Patton.[33]

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[29] J.W. Creswell, Research Design: Qualitative & Quantitative Approaches, p. 175.

[30] J.C. Greene, V.C. Caracelli, and W.F. Graham, "Toward a Conceptual Framework for Mixed-method Evaluation Designs," Educational Evaluation and Policy Analysis 11(1989): p. 255-274.

[31] J.W. Creswell, Research Design: Qualitative & Quantitative Approaches, p. 177.

[32] J.C. Greene, V.J. Caracelli, and W.F. Graham, "Toward a Conceptual Framework for Mixed-method Evaluation Designs," p. 255-274.

Three models of combined designs (mixed methods) have been reported by Creswell.[34] The first model is known as the *two-phase design*. In this design the researcher undertakes a quantitative phase of the study and a separate qualitative phase. The second model is termed the *dominant-less dominant design*. In this design the researcher presents the study within a single, dominant paradigm with a small component drawn from the alternative paradigm. The third model is the *mixed-methodology design*. In this model the researcher mixes aspects of the quantitative and qualitative paradigm at all or several steps in the design. For example, the paradigms might be mixed in the introduction, in the literature review or in the use of theory.

As already stated, the present study utilised a dominant-less dominant mixed method design. In such studies one paradigm and its methods are dominant, while a small component of the overall study is drawn from the alternative paradigm. In the present study a quantitative approach formed the dominant paradigm. The best way to describe how this design was used in the present study is to consider it as consisting of two major phases: (a) the less-dominant phase and (b) the dominant phase. The less-dominant phase (qualitative) used a focus group interview to collect data from a sample of nurses. The dominant phase utilised a quantitative approach and data collection involved the use of a questionnaire survey. In the present study, the less-dominant phase preceded the dominant phase and was used to inform the dominant phase. Therefore, the findings from the survey, not the focus group, contributed to the

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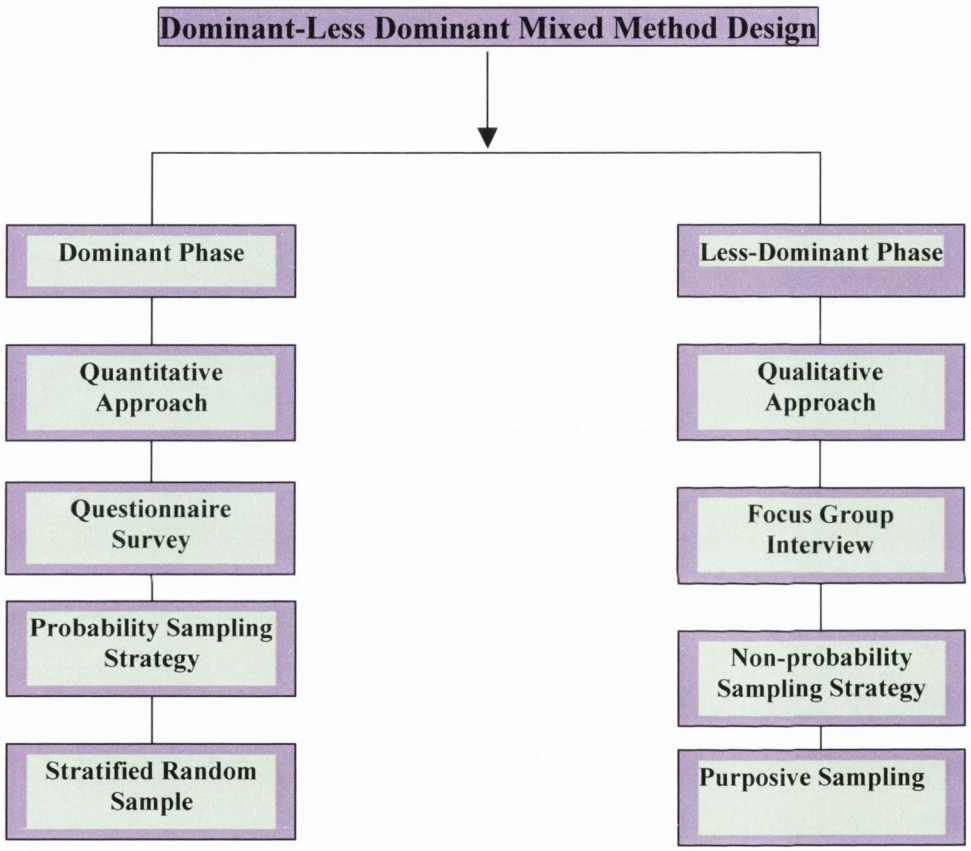
[33] M.Q. Patton, Qualitative Evaluation and Research Methods 2nd ed., (Newbury Park, CA.: Sage, 1990), p. 187-189.

[34] J.W. Creswell, Research Design: Qualitative & Quantitative Approaches, p. 177.

results of the present study. Figure 6 demonstrates how the dominant-less dominant mixed method design was used in the present study.

Research Design Used in the Present Study



The less-dominant phase preceded the dominant phase of the study.

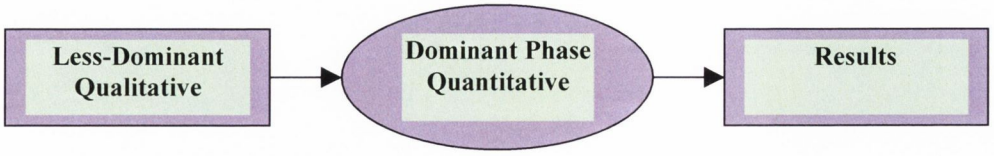


Figure: 6

4.5.1 Rationale for Selecting a Dominant-Less Dominant Mixed Method Design

There are several reasons for using mixed methods in a single study. In the present study, however, it was used developmentally, wherein data from the first method was used sequentially to help inform the second method. The use of mixed method designs is supported by Patton,[35] who despite supporting the view that paradigm distinctions are real and useful, argued that a researcher could mix methods without being restricted by loyalty to any one paradigm. Patton further speculated that the tendency for researchers to operate within only one paradigm has decreased significantly since the late 1970s.

Earlier, several mixed method designs were described. The dominant-less dominant design was chosen because this researcher wanted to present the study within a single dominant paradigm yet have the option of using a data collection method from the alternative paradigm. The advantage of this design is that "it presents a consistent paradigm picture in the study"[36] yet collects limited information using an alternative method of data collection to explore one aspect of the study.

4.5.2 Rationale for Using a Quantitative Approach as the Dominant Paradigm

In the dominant-less dominant mixed method design the researcher presents the study within a single, dominant paradigm with one small part of the overall study taken from the alternative paradigm. The present study was designed to establish the nature of the relationship between several variables. To achieve this, it was necessary to undertake the study using the quantitative paradigm, as this would allow the

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[35] M.Q. Patton, "Paradigms and Pragmatism," in Qualitative Approaches to Evaluation in Education, ed. D.M. Fretterman (New York: Praeger, 1988), p. 116-137.

[36] J.W. Creswell, Research Design: Qualitative & Quantitative Approaches, p. 177.

relationship between variables to be tested. Thus, a quantitative approach was used as the dominant paradigm. Quantitative research can be divided into two main categories namely, non-experimental and experimental. Exploratory research, descriptive research, correlational research and quasi-experimental research are all regarded as non- experimental approaches.

The decision to undertake this study using a quantitative approach as the dominant paradigm was not dependent on the personal preference of this researcher but rather on factors related to the nature of the research topic and the type of information required. For example, one purpose of the present study was to compare its findings with those of other international studies that used the Index of Work Satisfaction questionnaire (IWS) to measure job satisfaction. This required precision in measurement, objectivity and representativeness. These, according to Sarantakos[37] are some of the main principles of quantitative research.

One way in which precision in measurement can be achieved is to use valid and reliable instruments to collect data. This study used instruments that were valid and reliable. Objectivity is generally employed to reduce personal prejudice and bias and to guarantee that reality is reported as it really is, rather than as it is interpreted or imagined by the researcher. Representativeness is also important because it allows generalisations to be made and the greater the representativeness the greater the generalisability of the findings. To achieve representativeness the sample must be selected in a way that reflects the attributes of the population it represents.[38] Williams

[37] S. Sarantakos, Social Research, p. 18.

[38] Ibid., p. 26.

& May[39] suggest that if social investigations ".... are to produce findings that are anything other than trivially interesting, claims about their representativeness, validity and potential for generalisation must hold".[40]

4.5.3 The Research Cycle

Tashakkori & Teddlie[41] suggest that:

> Research on any given question at any point in time falls somewhere within a cycle of inference processes, often referred to as the research cycle, ...or the cycle of scientific methodology. The cycle may be seen as moving from grounded results (facts, observations) through *inductive logic* to general inferences (abstract generalisations or theory), then from those general inferences (or theory) through *deductive logic* to tentative hypotheses or predictions of particular events/outcomes.[42]

Research, whatever the area, passes through this cycle at least once before it ends. A research project may begin at any point in the cycle. Because this study used a dominant-less dominant mixed method design this researcher began the research process by collecting facts and evidence from the literature and through a focus group interview in order to inform the second (dominant) phase of the study. This information was then used to formulate assumptions about the relationships between the variables under investigation. Then, through the deductive process tentative predictions were expressed in the form of hypotheses. A visual representation of this chain of events is shown in Figure 7.

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[39] M. Williams, and T. May, Introduction to the Philosophy of Social Research (London: UCL Press Limited, 1996), p. 68.

[40] Ibid.

[41] A. Tashakkori, and C. Teddlie, Mixed Methodology: Combining Qualitative and Quantitative Approaches, p. 24.

[42] Ibid.

The Research Cycle

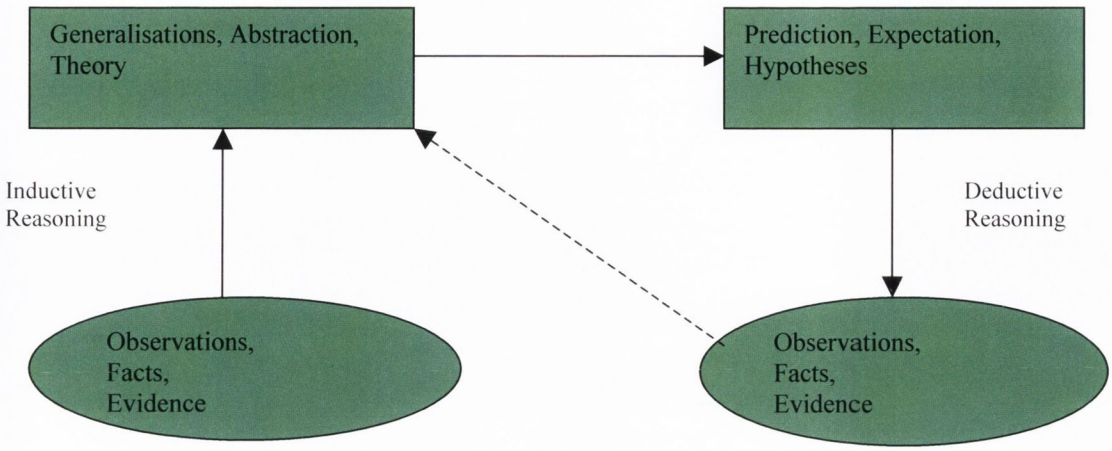

Figure 7 The Research Cycle (Cycle of Scientific Methodology)[43]

4.6 Population and Sample

The target population (that is, the population to which the findings will be generalised) in the present study is nurses in the Republic of Ireland. It is not possible to collect data from everyone in the population since it would be too expensive and time consuming. Therefore, a sample was used. Two samples were required for the present study. The sample for the focus group interview employed a non-probability sampling strategy while probability sampling was used for the questionnaire survey. Purposive sampling, sometimes called judgmental or theoretical sampling, was used to select participants for the focus group interview. This technique is one of several non-probability sampling strategies used by researchers.[44]

The rationale for using purposive sampling is twofold. Firstly, it is widely used in qualitative research and would therefore be suitable for the less-dominant phase of

[43] Ibid., p. 25.

[44] L.A. Talbot, Principles and Practice of Nursing Research, p. 254.

this study. Secondly, it allows the researcher to select participants who are best able to provide the most useful information about the phenomena under investigation.[45]

4.6.1 Selecting the Sample for the Focus Group Interview

Purposive sampling was used to select the sample for the focus group interview in the present study. The participants were known to the researcher and were recruited either in person or by telephone. They were informed about the purpose of the study, the length of the interview and the stages in the interview process. In addition, participants were informed about the procedures for protecting anonymity and confidentiality of data. Participants were also informed that a research pack containing further information about the study and purpose of the focus group would be provided at the beginning of the interview. Time was allocated for participants to read the contents of this pack and sign the consent form before the interview began.

In using a focus group interview, the researcher was aware that it is more important to minimize bias rather than achieve generalisability.[46] Therefore, the sample composition was given due consideration. The intention was to reduce homogeneity in attitudes as this could result in participants having identical views on the topic and thus lead to an unproductive discussion.[47] To overcome this, the researcher used a mixed group. The participants were selected from different hospitals, worked in different clinical specialities, and had undertaken different nurse education

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[45] Ibid., p. 255.

[46] D.L. Morgan, Focus Groups as Qualitative Research 2nd ed., (California: Sage Publications, Inc., 1997), p. 35.

[47] Ibid., p 36.

programmes. Further information about the focus group interview is contained in Appendix 1.

4.6.2 Selecting the Sample for the Quantitative Dominant Phase (Postal Survey)

In quantitative studies, a major factor to consider is a sample's representativeness – the degree to which the sample is similar to the target population. According to Polit and Beck:

> Unfortunately, there is no method for ensuring that a sample is representative. Certain sampling plans are less likely to result in biased samples than others, but here is never a guarantee of a representative sample. Researchers operate under conditions in which error is possible, but quantitative researchers strive to minimise or control those errors.[48]

One method that can be used to increase representativeness is probability sampling. Probability sampling was used to select the sample for the dominant quantitative phase of the study. Probability sampling is a randomised technique of choosing subjects for research studies and each person in the population has a chance of being included.[49] Therefore, some confidence can be placed in the sample being representative. Several probability-sampling techniques are available to researchers. For the present study, however, stratified random sampling was selected. In this sampling technique, the population is divided into a number of strata and a random sample taken from each stratum. The sub-samples are combined to make up the final sample of the study. The population is divided into strata, based on one or more criteria, for example, age, sex, or educational level.

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[48] D.F Polit and C.T. Beck, Essentials of Nursing Research: Methods, Appraisal, and Utilization 6th ed., (Philadelphia: Lippincott Williams & Wilkins, 2006), p. 260.

[49] L.A Talbot, Principles and Practice of Nursing Research, p. 243.

In the present study, the population of nurses was divided into strata based on one criterion, that is, nursing discipline. In stratified random sampling the size of the sample can be proportionate or disproportionate to the number in the population. In the present study proportional stratified sampling was used. Thus, the number of respondents taken from each stratum must be proportional to the number in that population. The breakdown of the size of the sample is given in Table 1. Before presenting that information, it is important to describe how the stratified sample was drawn. Sarantakos[50] developed a series of steps that must be followed when using stratified random sampling.

Step 1

The target population is divided into a number of strata, where members of the stratum share a particular characteristic. In this instance the division of the population into strata was based on one criterion, that is, nursing discipline. All the nurses in a particular stratum were registered in that particular discipline. Six nursing disciplines were identified and used in this study (this information is contained in the first column in Table 1).

Step 2

Sampling frames for each stratum must be identified or constructed. For the purpose of this research assistance was sought from *An Bord Altranais* (Irish Nursing Board) as they already had a list of all registered nurses within each stratum (nursing discipline) in the Republic of Ireland. These figures are given in the column titled Active Register in Table 1. It is important to stress, however that *An Bord Altranais* agreed to select the sample on behalf of this researcher.

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[50] S. Sarantakos, Social Research, p. 130-131.

Step 3

The next step was to calculate a proportional sample from each stratum. To do this the percentage for each stratum was calculated. To calculate the percentage for the General Discipline the total number of nurses in this discipline (47,363) was divided by the total number of nurses (80,183) and then multiplied by 100 (column labelled % of Total in Discipline in Table 1). This procedure was repeated for each stratum. Next, the number of respondents from each stratum or discipline was calculated (columns four and six in Table 1). To do this, the percentage was multiplied by the total number of respondents for the study sample. To obtain the number of respondents needed from the General Discipline calculate 59% of 2,000 (2,000 is the size of the sample for the main survey). When the number of nurses required from each stratum for both the pilot study and the main survey were calculated, this information was sent to the Director of Operations at *An Bord Altranais* who then made a random selection from each stratum on behalf of this researcher.

Step 4

When the required number of respondents from each stratum was selected, the samples were merged into one. The total number of respondents constituted the sample required for the present study. The procedures described in each of the four steps were undertaken for both the pilot study and main survey.

Stratified random sampling was used to select the sample for the survey because it enhances the representativeness of the sample. One drawback of using this sampling technique is that it requires extensive knowledge of the population in order to stratify it accurately. Fortunately, *An Bord Altranais* provides assistance in selecting research samples when requested by nurses.

Calculating the Stratified Random Sample

Nurse Registration Statistics - 2001		Sample Required for Present Study			
Discipline	Active Register	Pilot Study		Main Study	
		% of Total in Discipline	Sample Size for each Stratum	% of Total in Discipline	Sample Size for each Stratum
General	47363	59%	118	59%	1180
Psychiatric	9416	12%	24	12%	240
Sick Children	3630	5%	10	5%	100
Mental Handicap	3614	5%	10	5%	100
Midwifery	13479	17%	34	17%	340
Public Health	1878	2%	4	2%	40
Tutor	457	-	-	-	-
Other	346	-	-	-	-
Total	80183		200		2000

Table: 1

4.6.3 Inclusion Criteria for the Sample

a) Respondents must be registered in at least one division of the register held by *An Bord Altranais* (Nursing Board).

b) Respondents from any of the disciplines listed in Table 1 except nurse tutors are eligible.

c) Respondents must be currently employed by either a state funded or privately funded institution.

d) Respondents employed in a variety of specialities (for example, medical unit surgical unit, or intensive care unit) are eligible.

e) Female and male respondents.

f) Respondents from all educational levels are eligible.

g) Respondents of all ages are eligible.

h) Respondents from all grades or positions within their organisations (for example, staff nurse, clinical manager 1, 2, or 3, assistant director of nursing and director of nursing) are eligible.

4.6.4 Exclusion Criteria for the Sample

a) Registered nurse teachers (tutors).
b) Nurse lecturers in third level institutions.
c) All nurses on the inactive register held by *An Bord Altranais*.

4.6.5 Sample Size

An important question that needs to be considered by all researchers is how large a sample to use?[51] This is a fairly straightforward and reasonable question. It is a question that does not lend itself to a correspondingly straightforward answer.[52] In fact, the answer is determined by several factors associated with the research and which the researcher must consider. Including, time, money, and availability of respondents. In addition, it is important to focus on the purpose of the study, the research design selected, the sampling procedures used and the method of data collection.[53,54]

As indicated earlier in this chapter a dominant-less dominant mixed method design was used in the present study. The purpose of the less-dominant phase was to use it developmentally. The findings from the less dominant phase were used to help inform and guide the dominant phase of the study. In such instances where depth of information is more important than breadth, a smaller sample is acceptable.[55] The less-dominant phase of the study used a qualitative data collection method. This

[51] L.A. Talbot, Principles and Practice of Nursing Research, p. 258.

[52] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 21.

[53] L.A. Talbot, Principles and Practice of Nursing Research, p. 258.

[54] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 21-25.

[55] L.A. Talbot, Principles and Practice of Nursing Research, p. 259.

method should allow researchers to focus on capturing the subjective experiences of participants and tends to use small samples to generate information rich in details of the overall experience. Purposive sampling was used as this allowed the researcher to handpick participants who were capable of providing information, rich in detail, about the topic being researched. According to Sarantakos,[56] when purposive sampling is used the size of the sample is not of main importance. In such circumstances the size of the sample is evaluated in the context of the overall study and representativeness relates to quality rather than quantity.

Data for the less-dominant phase of the study were collected through a focus group interview. This method of data collection is generally considered to be a useful way of exploring participants' attitudes, perceptions and ideas about a topic. In addition, it allows the researcher to obtain contributions from interviewees who might be reluctant to participate in a one-to-one interview. Because of their informal interchanges focus group interviews can result in insights that might not have manifested in the more conventional one-to-one interview.[57] One of the drawbacks of focus group interviews is that it is difficult to record the discussion as participants interrupt one another and sometimes speak simultaneously. Usually focus groups consist of a small number of people and Denscombe[58] suggests approximately six to nine. In this case, this researcher used a sample of seven (7) nurses employed in different hospitals in the Republic of Ireland.

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[56] S. Sarantakos, Social Research, p. 143.

[57] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 115.

[58] Ibid.

In determining the size of the sample for the dominant quantitative phase, factors such as the purpose of the study, the research design selected, the sampling procedures used and the method of data collection were considered. One purpose of this study was to examine the relationships between variables. According to Talbot[59] the larger the number of variables being examined in the study, the greater the need for a larger sample. In quantitative research it is important that researchers select a sample that is representative of the target population. The data for this part of the study were collected by postal questionnaire. Using questionnaires can provide wider coverage because they can access subjects more easily than other methods.[60] Response rates can be low, however, and can pose a threat to the validity of the findings.[61] Consequently, postal questionnaires should only be considered if a large sample is planned.

In quantitative research, the issue of generalisability (the degree to which study findings from a sample can be related to a larger population) must be given due consideration before deciding on the size of the sample. Small samples may produce results that cannot be generalised. If results cannot be generalised then they are of little scientific value.[62]

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[59] L.A. Talbot, Principles and Practice of Nursing Research, p. 259.

[60] Ibid., p. 158-159.

[61] L.A. Talbot, Principles and Practice of Nursing Research, p. 259.

[62] J. Pallant, SPSS Survival Manual (Buckingham: Open University Press, 2001), p. 136.

Tabachnick and Fidell[63] provide a formula for calculating a sample size, taking into account the number of independent variables being used. This formula is:

N > 50 + 8m (where m = number of independent variables).

The present research study has two main independent variables: biographical factors and organisational climate. Each of these independent variables consisted of 9 and 6 components or variables respectively. Therefore, these components were treated as variables and included in the above formula to calculate the size of the sample. This means that an acceptable sample size for the present study would be 170 respondents {50+120 (9+6=15x8=120) which gives a total of 170}. For regression analysis, however, at least 40 subjects are required for every independent variable. Thus, the sample required for the present study was calculated using the following formula:

N > 50 + 40m (where m = number of independent variables).

Therefore, the size of the sample needed for the present study was 650 respondents. If 40 respondents are needed for each independent variable and the present study has 15 independent variables then 15 multiplied by 40 gives 600. To obtain the size of the sample using this formula 600 is added to 50 giving a total of 650. It is important to point out, however, that in postal surveys the actual sample size may not equal the number of responses that are returned to the researcher. Therefore, the researcher must predict the kind of response she or he is likely to get.[64] For the present study a response rate of 30% was anticipated, which means that the actual size of the sample would have to be approximately 2167 (650÷30x100=2167). The total number of questionnaires posted out was 2000.

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[63] B.G. Tabachnick, and S. Fidell, Using Multivariate Statistics 3rd ed., (New York: Harper Collins, 1996), p. 132.

[64] M. Denscombe, The Good Research Guide, p. 21-24.

4.6.6 Contacting the Samples

When the sampling strategies had been selected and the size of the sample calculated for the survey the next stage was to contact the potential respondents and invite them to participate in the study. The sample for the focus group interview was fairly small. Therefore, the respondents were contacted either in person or by telephone. All respondents were given time to think about whether they wanted to participate in the study and then contact the researcher at a later date with their decision. The sample for the survey was fairly large so respondents were sent a survey pack that included a letter explaining how they were selected. A time schedule giving details of the activities involved in contacting respondents is given in Table 2.

Time Schedule for Contacting Respondents

Step	Time-Frame	Activities	Outcome
Phase 1: Less-dominant Design Focus group interview	First Contact: March 2002	Participants were contacted either by telephone or in person. Purpose of this contact was to recruit participants.	All participants selected agreed to participate.
	Second Contact: Second week in April 2002	Participants were contacted by letter. The purpose of this contact was to remind participants of the date, time and venue for the interview and explain that detailed information about the study would be given on the day of the interview.	With the exception on one (due to work commitments) all other participants who originally agreed to participate confirmed their intention to attend the interview. The focus group interview took place on Thursday 18th April 2002.
Phase 2: Dominant Design Postal Survey	Pilot Study: Questionnaires sent on 24th June 2003		Response Rate was 26.5% (n=53)
	Main Study: Questionnaires sent on 24th September 2003		Response Rate was 30.5% (n=610)

Table: 2

4.7 Data Collection Procedures

When the research design, the sampling techniques and the size of the sample were decided the next stage was to make a connection between the research study and the respondents. This connection is made through the methods of data collection.[65] Data collection methods are influenced by several factors but the research methodology is one of the most important.[66] For example, quantitative research relies on instruments

[65] S. Sarantakos, Social Research, p. 152.

[66] Ibid.

to collect data. These instruments must demonstrate significant reliability and validity before they can be used. Qualitative research does not use psychometrically developed instruments but uses an interview guide with broad themes and probes. This guide is meant to be flexible and may change as the interview progresses.[67] (A copy of the interview schedule and other material relating to the focus group interview is contained in Appendix 1).

In addressing the issue of the "right method of data collection" Sarantakos suggests "...the conflict about the right or wrong method is to a certain extent unjustified".[68] What is more important is to consider all methods to be relevant and effective depending on the type of research being undertaken and not because one method is regarded to be superior to all others.[69,70] This study used a dominant-less dominant mixed method design and thus utilised methods of data collection relevant to both quantitative and qualitative research. This is beneficial not only because it produces different kinds of data on the same topic but also because more data are produced and thus likely to improve the quality of the research.[71] Because qualitative data (less-dominant phase) were used to inform the questionnaire survey (dominant phase), it was important to select a data collection method that would allow participants' views to emerge. A focus group interview seemed appropriate in such circumstances as it

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[67] L.A. Talbot, Principles and Practice of Nursing Research, p. 89.

[68] S. Sarantakos, Social Research, p. 157.

[69] Ibid.

[70] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 83.

[71] Ibid., p. 84.

allowed participants' views and feelings to emerge but at the same time the interviewer retained some control of the interview session.[72]

4.7.1 Advantages and Limitations of Interviewing

Interviewing is a commonly used technique in social research. This popularity is probably due to its many advantages.[73,74] Some of these advantages are explained in Table 3.

Advantages of Interviewing

Advantage	Explanation
Flexibility	As a method of data collection interviews are probably the most flexible. Adjustments to how the interviewer proceeds with the interview can be made during the interview itself.
Easy administration	Participants are not required to read long complex questionnaires.
Observing non-verbal behaviour	Opportunities for the researcher to observe non-verbal behaviour can help in understanding verbal responses.
Opportunities for correcting misunderstandings by participants	Such opportunities are valuable and are not present in data collection methods such as questionnaires.
Completeness guaranteed	The fact that the interviewer presents the questions, guarantees that all questions will be attempted.
Control over time, date and place of interview	Interviews tend to offer a guarantee that information will be collected according to the specifications in the interview protocol.
High response rate	As a rule interviews are prearranged with a scheduled time and location. This, therefore ensures a relatively high response rate.

Table: 3

Despite the many advantages of interviewing there are some limitations that should not be overlooked. For example interviews are more costly and time-consuming than other forms of data collection such as questionnaires. Interviews produce data that are

[72] C. Robson, Real World Research: A Resource for Social Scientists and Practitioner-Researchers (Oxford: Blackwell Publishers Ltd., 1993), p. 240.

[73] Ibid., p. 228-230.

[74] S. Sarantakos, Social Research, p. 197-198.

not pre-coded and analysis can be difficult and time-consuming. Biases are difficult to rule out because of the presence of the interviewer. Interviews offer less anonymity and can be less effective than other methods when sensitive issues are being discussed as many participants prefer to write about such issues than talk about them.[75,76,77]

Before conducting the focus group interview due consideration was given to its planning and preparation. This included the preparation of an interview schedule, respondent information sheet to include ethical considerations, arranging the venue, deciding how to record the interview, and developing a check list for monitoring progress during the interview.

4.7.2 Advantages and Limitations of Questionnaires

The dominant phase of this study utilised a quantitative design and a questionnaire survey was used to collect data. Surveys are one of the most frequently used methods of data collection in the social sciences.[78] Surveys are methods of data collection whereby information is collected through oral or written questioning. In the present study written questioning through the use of postal questionnaires was used. One purpose of this study was to examine the relationship between variables, therefore a large sample was required. The use of questionnaires promises wider coverage

[75] Ibid., p. 198-199.

[76] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 136-137.

[77] C. Robson, Real World Research: A Resource for Social Scientists and Practitioner-Researchers, p. 229-230.

[78] S. Sarantakos, Social Research, p. 157.

because they can be sent to potential respondents more easily than other methods.[79] In addition, this researcher was attracted to the questionnaire as a method of data collection because of its many strengths. Compared with other methods of data collection, questionnaires are economical in that they can provide a considerable amount of data at relatively low cost in terms of materials, money and time.[80] This is particularly the case in relation to postal questionnaires. Postal questionnaires are easier to arrange than interviews. In fact no arrangements are needed, as the questionnaire is sent directly to respondents. Questionnaires are also a convenient method as they can be completed at the respondent's convenience.[81] They offer standardised answers because all respondents receive exactly the same questionnaire.[82] A considered and objective view on the issue being researched is more likely because subjects have enough time to complete the questionnaire and many prefer to write about their feelings and views on certain issues rather than talk about them.[83] Finally, questionnaires offer greater assurance of anonymity.

A number of deficiencies of questionnaires must be noted. Questionnaires do not allow opportunities for encouraging respondents to participate in the study nor do they allow for additional information to be collected while they are being completed. Due to lack of supervision it is possible that some questionnaires will be partially completed. As the conditions under which the questionnaire was completed are not known, the researcher is unable to determine whether the respondent answered the

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[79] Ibid., p. 159.

[80] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 105.

[81] S. Sarantakos, Social Research, p. 159.

[82] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 105.

[83] S. Sarantakos, Social Research, p. 159.

questions independent of assistance.[84,85] The response rate to postal questionnaires can be quite low.[86] Therefore, the researcher must allow for non-responses when deciding on the size of the sample.[87]

Questionnaires can either be successful or unsuccessful. Success depends on devoting enough time and effort to the planning of this stage rather than rushing to distribute questionnaires too early.[88] For this reason this researcher prepared a plan of all the activities that had to be considered before data collection commenced. Such a plan introduced a systematic approach to data collection, thereby guaranteeing that all activities were executed in the right sequence. Table 4 summarises the stages of data collection and the activities involved.

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[84] Ibid

[85] M. Denscombe, The Good Research Guide: For Small Scale Social Research Projects, p. 106.

[86] Ibid, p. 8.

[87] Ibid, p. 24.

[88] Ibid, p. 90.

Stages of Data Collection

Stages	Activities
1. Preparation of Questionnaire	a) Photocopy questionnaire booklet. b) Ensure that all accompanying information was ready for attachment. c) Pre-coded questionnaires can sometimes deter people from responding so the questionnaires used in the present study were not pre-coded.
2. Prepare Letter to Respondents	d) A covering letter indicated the purpose of the study, conveyed its importance, assured confidentiality and encouraged subjects to reply. e) This letter also indicated the name of the University, the name of this researcher and the names of the research supervisors. f) A few words of thanks to the subjects were included.
3. Ethical Issues	g) The covering letter stated how this researcher would uphold anonymity and confidentiality. In addition, this researcher prepared a short ethics protocol that outlined the responsibilities of this researcher and the rights of the subjects. h) Participants of the focus group signed a consent form.
4 Mailing of Questionnaires	i) A schedule giving details such as date questionnaires were sent out, the expected return date, and the number of questionnaires posted and received was prepared. j) A stamped addressed envelope for return of questionnaire was enclosed in every survey pack. k) Mailing during the Christmas, Easter and the summer periods was avoided.
5. Collection and Checking of Questionnaires	l) Returned questionnaires were checked to see whether they were completed fully and accurately. m) Questionnaires were coded after data collection was completed. n) Data were analysed using the Statistical Package for the Social Sciences (SPSS) Version 11.
6. Improving Response Rates - Follow-up	o) A follow-up system is recommended for improving the response rate of a questionnaire survey. One way in which this can be done is to send reminder postcards to the sample two weeks after the initial questionnaire was posted. This can be followed by another reminder or posting the survey pack a second time. Unfortunately, however, it was not possible to undertake this activity in the present study since *An Bord Altranais* selected the sample and distributed the questionnaires on behalf of this researcher.

Table: 4

4.8 Measurement Instruments

When deciding on measurement instruments the task for the researcher is to choose instruments that measure the variables of interest accurately and precisely.[89] According to Talbot, "the most common form of instrumentation involves directly

[89] L.A. Talbot, Principles and Practice of Nursing Research, p. 292.

asking the respondents about the study variables; hence the name self-report".[90] Self-report instruments include questionnaires, scales, surveys and interviews. These instruments are particularly effective when the purpose of the study is to obtain information about attitudes, feelings, and knowledge.

One of the main purposes of this study was to examine the relationship between organisational climate and job satisfaction among nurses in the Republic of Ireland. Therefore, it was imperative that the data collection instruments measure the variables being examined. In addition, because Two-Factor theory was being used to interpret the findings on job satisfaction it was essential that the instrument selected to measure job satisfaction contained components that were similar to the motivator and hygiene factors proposed by Two-Factor theory.

A questionnaire booklet containing three instruments was used in the present study. The first instrument was a Biographical Questionnaire that was developed by this researcher. The other two instruments were found during a review of the literature. They were the Index of Work Satisfaction Questionnaire (IWS), developed by Dr. Paula Stamps[91] and the Nurse Organisational Climate Description Questionnaire (NOCDQ), developed by Duxbury *et al.*[92]

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[90] Ibid.

[91] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 181-185.

[92] M.L. Duxbury, G.A. Henly, and G.D. Armstrong, "Measurement of the Nurse Organisational Climate of Neonatal Intensive Care Units," p. 83-88.
These authors modified the Organisational Climate Description Questionnaire (OCDQ) developed by A.W. Halpin and D.B. Croft. Duxbury and her colleagues tested the modified instrument using nurses. The instrument was renamed the Nurse Organisational Climate Description Questionnaire.

4.8.1 Rationale for Selecting Instruments

Talbot[93] suggests that when choosing instruments it is important to examine their content, efficiency, suitability for the population, reliability and validity. The content of any instrument should be able to measure the variables under investigation accurately. After reviewing a copy of the Index of Work Satisfaction Questionnaire, it became clear that this questionnaire was suitable for measuring job satisfaction accurately. Moreover, the questionnaire is not too long and should allow the desired information to be collected quite quickly. Another important factor is that this instrument was designed by nurses to assess job satisfaction among nurses and would therefore be suitable for the present study. The use of an existing instrument is less costly in terms of time and money and would generally have been tested for reliability and validity.

The Index of Work Satisfaction (IWS) is a widely used instrument in the nursing profession and the author has reported relatively high reliability and validity scores (see Table 5 for reliability analysis). Nevertheless, it was important to obtain the views regarding the content of the questionnaire from a sample of nurses in Ireland. The questionnaire booklet containing all three instruments was given to a group of nurses who volunteered to read it for content validity before using it in the pilot study. These volunteers made two important observations. Firstly, the layout of the questionnaire booklet was excellent. Respondents were able to determine quite quickly that three different sets of data were being collected. Secondly, volunteers reported no difficulties in completing the questionnaire.

[93] L.A. Talbot, Principles and Practice of Nursing Research, p. 292.

4.8.2 Permission to Use Instruments

Permission to use the Index of Work Satisfaction Questionnaire was obtained from the author. All attempts to contact the authors of the Nurse Organisational Climate Description Questionnaire were unsuccessful. Given that this instrument was already in the public domain, it was decided to go ahead and use it. The Biographical Questionnaire was developed by this researcher. Copies of letters seeking permission to use these instruments can be found in Appendix 2 A and B.

4.8.3 Description of Instruments

Three instruments were used in this survey: (a) Biographical Questionnaire (b) The Index of Work Satisfaction (IWS) and (c) Nurse Organisational Climate Description Questionnaire. Descriptions of each of these instruments now follow.

The Biographical questionnaire contained ten questions. These questions include gender, age group, private or public work sector, health board area, nursing education, country in which nursing and midwifery education was undertaken, registration details, current place of employment, current position at work, and length of time in current place of employment. Almost all nursing research studies collect some type of biographical information. In many instances, however, researchers fail to provide a rationale for so doing. Stamps[94] suggests that most researchers collect biographical data because "everyone else does". In the present study biographical data were collected because this researcher wanted to determine how biographical variables affect job satisfaction. The underlying assumption here is that biographical data may help researchers gain a better understanding of job satisfaction among nurses.

[94] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 33.

Variables such as education, gender, age and personality factors are among the most common ones used (discussed in Chapter Two) by researchers exploring job satisfaction. In developing this questionnaire this researcher decided to include not only those variables that have been widely examined by previous researchers but to consider also variables that were less frequently measured by researchers. Participants of the focus group interview also completed this questionnaire. No difficulties arose with regard to clarity and the participants did not recommend any changes.

The Index of Work Satisfaction questionnaire is a two-part instrument designed to determine nurses' level of satisfaction with their work by measuring six components of satisfaction. The six components are Pay, Autonomy, Task Requirements, Organisational Policies, Professional Status, and Interaction. According to the author of this instrument,[95] these six components were identified following an extensive literature review, interviews with nurses and several years of statistical testing for reliability and validity. As already indicated this instrument has two parts. The first part of the questionnaire (Part A) is referred to as Paired Comparisons. Each of the six components identified above are presented in pairs and a total of 15 sets of paired comparisons are used. No pair is repeated or reversed. Part A of the questionnaire measures the relative importance of each of the six components to the respondent.

The second part of the questionnaire (Part B) uses a Likert scale to measure the current level of satisfaction for each of the six components. This part contains 44 statements. According to Stamps this two-part design allows flexibility in analysis.

[95] Ibid., p. 188.

Since each of the six components is a separate dimension of job satisfaction, each component provides a separate score. Thus, the rankings of current level of satisfaction (derived from Part B) can be compared with the rankings of relative importance (derived from Part A). This comparison assists in identifying the areas within the organisation that are in greatest need of reorganisation or change.

4.8.4 Comparison of Reliability Analysis for the IWS

Reliability refers to the ability of a data collection instrument to produce consistent results. Reliability is equivalent to consistency.[96] Therefore, a research instrument is reliable if it produces the same results when repeated over time even by different researchers. Researchers are interested in how people differ from one another, that is their variance. So, what the researcher is interested in is how much of the variance is true variance and how much is due to error or chance. Reliability is assessed by statistically estimating how much of a measurement instrument's total variance (a mathematical estimate of how scores vary around the mean) is true variance and what is error.[97]

Two frequently used methods for testing reliability are test-retest reliability and internal consistency. Internal consistency is the degree to which the items that make up the scale are all measuring the same attribute (in other words, the extent to which the items fit together). Internal consistency can be measured in a number of ways. One of the most widely used statistics is Cronbach's coefficient alpha. This statistic produces an indication of the average correlation among all of the items that make up

[96] S. Sarantakos, Social Research, p. 79.

[97] L.A. Talbot, Principles and Practice of Nursing Research, p. 74.

the scale. The reliability values range between zero (0.0), or no reliability, and 1 (1.0), or perfect reliability.[98] For the present research study reliability was assessed using Cronbach's coefficient alpha because previous researchers had used this procedure to test reliability. The reliability scores obtained in the present study were compared with those of three studies including one undertaken by Stamps who is the author of the IWS. This information is contained in Table 5.

Reliability Analysis for the IWS

	Stamps[99] 1986	Martin *et al.*[100] 1995	Ingersoll *et al.*[101] 1996	Curtis[102] 2004
Components				
Pay	.85	.88	.87	.82
Autonomy	.69	.76	.70	.74
Task Requirements	.69	.70	.69	.72
Organisational Policies	.83	.74	.65	.73
Professional Status	.76	.45	.47	.59
Interaction	.82	.79	.77	.78
Overall	.91	.89	-	

Table: 5

Table 5 provides the reliability values for the IWS for four studies including the present study (Curtis 2004). As can be seen the overall reliability estimates are quite

[98] J. Pallant, SPSS Survival Manual, p. 6.

[99] P.L. Stamps, Nurses and Work Satisfaction: An Index for Measurement, p. 208-209.

[100] P. Martin, P.B. Risner, L. Cox, T. Gustin, G. Jordan, and K.K. Paden, "Properties of Work Satisfaction Instrument: Work Satisfaction Relationships with Other Research Instruments," in Nurses and Work Satisfaction: An Index for Measurement, 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press, 1997), p. 273.

[101] G.L. Ingersoll, A.W. Schultz, S.A. Ryan, and N.Holfart, "A Longitudinal Study of the Effect of a professional Practice Model on Staff Nurse Satisfaction," in Nurses and Work Satisfaction: An Index for Measurement, 2nd ed., P.L. Stamps (Chicago, Illinois: Health Administration Press, 1997), p. 111.

[102] E.A. Curtis, These reliability results are from the present study.

good. The component with the highest reliability score across all studies is that of Pay which has a range of .82 to .88. The Autonomy and Interaction components are also quite strong with scores in the .69 to .82 range. The scores, however, for Professional Status are low (.47 and .45) for two of the studies.

The third instrument used in the present study was the Nurse Organisational Climate Description Questionnaire, which is a modified version of the Organisational Climate Description Questionnaire. Halpin and Croft[103] developed the Organisational Climate Description Questionnaire (OCDQ) to measure the climate of elementary schools. The OCDQ was designed to tap two classes of behaviours of the work group: (a) those of the leader and (b) those of the subordinate. In developing the instrument the authors used responses from 1,151 respondents from 71 schools in six regions in the USA. The OCDQ is a 64-item instrument that is divided into eight scales, which are divided equally between leader and subordinate work group dimensions. These dimensions are listed and defined in Table 6.

[103] A.W. Halpin, and D.B. Croft, The Organisational Climate of Schools, 1962.

The Eight Scales of the OCDQ developed by Halpin and Croft, 1962

Subordinate's Behaviour	Leader's Behaviour
Disengagement – subordinate's tendency to be "not with it". This dimension describes a group that is "going through the motions", a group that is" not in gear" with respect to the task in hand.	Aloofness – behaviour by the leader that is characterised as formal and impersonal. The leader goes by the book," is guided by rules and policies rather that deals with subordinates in an informal, face-to-face situation.
Hindrance – subordinates' feeling that the leader burdens them with routine duties, committee demands, and other requirements which they construe as unnecessary "busywork".	Production Emphasis – behaviour by the leader, which is characterised by close supervision of the staff. The leader is highly directive.
Esprit – refers to morale. The subordinates feel their social needs are being satisfied, and that they are at the same time enjoying a sense of accomplishment in their job.	Thrust – behaviour by the leader which is characterised by an evident effort to "move the organisation". Trust behaviour is marked not by close supervision, but the leader's attempt to motivate the subordinates through the example he or she personally sets.
Intimacy – refers to the subordinates' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction not necessarily associated with task-accomplishment.	Consideration – behaviour by the leader which is characterised by an inclination to treat the subordinates "humanly" to try to do a little something extra for them in human terms.

Table: 6

In 1982 Duxbury, Henly and Armstrong[104] reported on their revision of Halpin and Croft's Organisational Climate Description Questionnaire (OCDQ). Duxbury *et al.* reported that earlier research by Halpin and Croft and Lyon and Ivancevich[105] indicated that there was substantial overlap in the domains covered by the OCDQ and felt that the number of items could be reduced without losing useful information. Four items were chosen from each of the original OCDQ scales thereby reducing the total number of items from 64 to 32. The purpose of this exercise was to create an instrument that would be more practical to use (less time to complete the form). A second modification concerned the wording of some of the items. References to the

[104] M.L. Duxbury, G.A. Henly, and G.D. Armstrong, "Measurement of the Nurse Organisational Climate of Neonatal Intensive Care Units," p. 83-88.

[105] H.B. Lyon, and J.M. Ivancevich, "An Exploratory Investigation of Organisational Climate and Job Satisfaction in a Hospital," p. 635-648.

school setting were changed to reflect the Neonatal Intensive Care Units. For example, "head nurse" was used instead of "principal" and "teachers" was replaced with "nurses". The revised instrument was referred to as the Nurse Organisational Climate Description Questionnaire, form A (NOCDQ-A). Initial analysis of this instrument revealed internal consistency reliability above .50 except for *Production Emphasis* (.26) and *Aloofness* (.34).

Further analysis resulted in a reduction of the original eight scales and the construction of a similar instrument made up of six of the original eight scales in modified form. The reliability coefficients for each of the new scales ranged from .51 to .83. This instrument, using these six new scales was referred to as the Nurse Organisational Climate Description Questionnaire-B (NOCDQ-B). This new instrument containing six components was used to measure organisational climate in the present research study. These components are listed and defined in Table 7.

The Six Scales of the NOCDQ Developed by Duxbury *et al* 1982

Subordinates' Behaviour	Leader's Behaviour
Disengagement – employees' tendency to be "not with it". This dimension describes a group that is "going through the motions", a group that is detached from the work environment or the specific task in hand.	Aloofness – behaviour by the leader or manager that is characterised as formal and impersonal. The manager is guided by rules and polices rather than deal with employees in an informal, face-to-face manner.
Hindrance – employees' feel that the leader or manager burdens them with routine duties, committee demands, and other tasks or activities which they construe as unnecessary bureaucratic detail.	Humanistic Thrust – behaviour by the leader or manager that reflects an effort to "move the organisation" forward. This behaviour is characterised not by close supervision, but by the manager's attempt to motivate employees through the example she or he sets. In addition, the manager or leader treats employees in a "humanly" way.
Esprit – refers to morale. The subordinates feel their social needs are being satisfied, and that they are at the same time enjoying a sense of accomplishment in their job.	
Intimacy – refers to the employees' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction not necessarily associated with task-accomplishment.	

Table: 7

Because organisational climate may vary from one neonatal intensive care unit to another Duxbury *et al.* decided to examine the ability of the NOCDQ-B to differentiate between organisations. These researchers argued that if their instrument contained valid climate measures then they should be able to detect such differences. Scores for each of the six NOCDQ-B scales were computed for every nurse respondent by adding all the item responses for each of the six scales. One-way analyses of variance was calculated for each of the six NOCDQ-B scales, with Neonatal Intensive Care Unit as the independent variable. The results revealed significant mean differences between the Neonatal Intensive Care Units for each of the six scales. In other words, the climate scales used in the Nurse Organisational Climate Description Questionnaire-B (NOCDQ-B) were able to differentiate across hospital Neonatal Intensive Care Units.

4.8.5 Comparison of Reliability Analysis of the NOCDQ

Reliability can influence the quality of the data collected in a research study. Therefore, it is important that this is taken into account when choosing an appropriate measurement instrument. Reliability was explained in section 4.8.4 of this chapter so this information will not be repeated here. Instead, this section will present the reliability analysis of the Nurse Organisational Climate Description Questionnaire (NOCDQ). Table 8 contains the Cronbach's coefficient alpha values of the NOCDQ for four research studies including the present research study.

Reliability Analysis for the NOCDQ				
Component	Duxbury *et al.*[106] 1982	Martin & Feeney[107] 1987	Martin[108] 1988	Curtis[109] 2004
Humanistic Thrust (six items)	.83	.84	.81	.81
Intimacy (four items)	.63	.65	.67	.66
Aloofness (three items)	.54	.56	.38	.41
Esprit (four items)	.76 (3 items)	.64	.63	.66
Disengagement (four items)	.58 (5 items)	.54	.35	.52
Hindrance (five items)	.51	.43	.55	.59

Table: 8

As can be seen in Table 8 the overall reliability estimates are quite good. The component with the highest reliability score across all studies is Humanistic Thrust which has a range of .81 to .84. The Esprit and Intimacy components are also quite strong with values in the .63 to .76 range, while the values for the Aloofness component are low (.38 and .41) for two of the studies.

[106] M.L. Duxbury, G.A. Henly, and G.D Armstrong, "Measurement of the Nurse Organisational Climate of Neonatal Intensive Care Units," p. 85.

[107] P. Martin, and J.Feeney, "Study of Organisational Dimensions of Climate and Research Productivity in a Collaborative Setting, Unpublished Manuscript Presented at Miami Valley Hospital Nursing Research Symposium," cited in P.A. Martin, Research Productivity by Nurses in Hospitals: The Influences of Organisational Context, Climate and Culture (Unpublished Ph.D. diss., Case Western Reserve University, 1988).

[108] P. A. Martin, "Research Productivity by Nurses in Hospitals: The Influences of Organisational Context, Climate and Culture," (Ph.D. diss., Case Western Reserve University, 1988).

[109] E.A. Curtis, These reliability results are from the present study.

4.8.6 Validity of Instruments

Validity refers to the ability of an instrument to measure what it is supposed to measure.[110] A valid instrument produces results that reflect true situations of the environment it intends to investigate. The validity of an instrument can be tested in two ways: empirical validation and theoretical validation. In the former, validity of an instrument is checked against empirical evidence. In the latter, validity is determined through theoretical or conceptual principles. Validity is ascertained in both methods if the findings obtained by the instrument in question are supported by empirical evidence or by theoretical principles.[111] According to Pallant[112] "....there is no one clear-cut indicator of a scale's validity. The validation of a scale involves the collection of empirical evidence concerning its use." Therefore, the validity of the instruments used in the present study was determined from empirical data.

As stated earlier The Index of Work Satisfaction (IWS) has been evaluated extensively by its author. Following an extensive literature review and several discussions with nurses and managers the six components of work that make up the scale were identified. The items relating to each component were submitted to a panel of nursing judges who estimated whether each item was related in content to the specific components. Only items accepted by the judges were included in the scale. Further discussions with users led to even more evaluation and refinement of the instrument. In addition, researchers who had used the IWS were asked to share their data with the author of the instrument. This information was used to compare

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[110] L.A. Talbot, Principles and Practice of Nursing Research, p. 280.

[111] S. Sarantakos, Social Research, p. 75.

[112] J. Pallant, SPSS Survival Manual, p. 6.

findings from approximately 50 studies that used the IWS. The results obtained were supportive of the scale structure, which also increases the confidence of the instrument in a variety of settings. Given its extensive evaluation, comparative analysis of findings from several studies, its increased use among nurses investigating job satisfaction, and its standardised procedures for scoring (a scoring workbook is available), a high level of confidence can be placed in what the IWS is actually measuring.

The Nurse Organisational Climate Description Questionnaire (NOCDQ) has not received the same extensive evaluation as the IWS. This is probably due to the fact that this questionnaire has not been used widely. Following as evaluation of the NOCDQ, Duxbury *et al.*[113] reported that using the NOCDQ to measure organisational climate for neonatal intensive care units "appears satisfactory from a psychometric standpoint .... wider application is necessary before its generalisability is established." These authors further suggested that even though the NOCDQ was used in neonatal intensive care units it would be suitable for use in other settings involving nurses. This claim is based on further analysis undertaken in their study. Climate they suggest is different from one neonatal intensive care unit to another. Therefore, if the NOCDQ is a valid tool for measuring climate then it should be able to detect differences between the units. The results showed that the NOCDQ did indeed demonstrate significant differences between different neonatal intensive care units. Another study[114] that has used the NOCDQ reported that the instrument did indeed measure what it was supposed to measure. Thus, validity of both these instruments is

[113] M.L. Duxbury, G.A. Henly, and G.D. Armstrong, "Measurement of the Nurse Organisational Climate of Neonatal Intensive Care Units," p. 83-88.

[114] L.D. Urden, "The Impact of Organisational Climate on Nurse Satisfaction," p. 44-48.

assumed because the findings obtained from the instrument are supported by empirical evidence. The validity of these instruments will be further validated if the predictions made by the present research study are supported.

4.9 Preparation of Data for Analysis

Data preparation refers to all forms of manipulation that are necessary for preparing the data for further processing whether manual or electronic, and include coding, categorising responses to open-ended questions, editing and checking and the preparation of tables and graphs.[115]

4.9.1 Data from the Focus Group Interview

The data from the focus group interview were obtained from the notes taken by the researcher during the interview, notes recorded by the facilitator and comments submitted by the independent observer including non-verbal communication. Because the data obtained from this focus group was used developmentally, data analysis was driven by the needs of the larger survey and therefore was not analysed as extensively as that required for a self contained focus group. In analysing and presenting the findings a grid approach was used whereby the outcome of each question was summarised.

4.9.2 Data from the Questionnaire Survey

The data obtained from the questionnaire-based survey were analysed by computer. However, before entering the data into the computer several activities were

[115] S. Sarantakos, Social Research, p. 312.

undertaken. The first activity involved the coding of the data. Coding is a process whereby numerical codes are assigned to each response. Coding can be undertaken prior to data collection or after the data are collected. In this study questions and responses were coded after data collection. When questions are not coded prior to data collection the use of a codebook is recommended in order to facilitate accuracy and uniformity in coding. A codebook outlines the plan used by the researcher for inputting the data into the computer. Recorded in the plan is the location and value of every variable entered into the computer file.[116]

The second activity involved editing and checking the data. The information contained in all questionnaires must be legible, relevant, and appropriate. To ensure that these standards were upheld all responses appearing on the questionnaires were checked before data were entered into the computer file. The questionnaires were also examined to identify missing data. When the data were entered into the SPSS data file a specific value (999) was assigned to all missing data.

A third activity required the preparation of a computer data file. This was prepared using information contained in the codebook that was developed for this study. Every variable entered into the computer file needs to be identified. Therefore, each variable in the computer was labelled so that variables associated with a particular analysis were clearly recognized in the computer printouts. The data were stored in a computer hard disc but a backup copy was made on floppy disk. In addition, a second floppy disc of the data was kept at a separate location.

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[116] N. Burns, S.K. and Grove, The Practice of Nursing Research: Conduct, Critique, & Utilisation 2nd ed., (Philadelphia: W.B. Saunders Company, 1993), p. 442.

Cleaning the data is yet another activity undertaken prior to analysis. Cleaning occurred at two levels. First, data in the codebook required cleaning. This involved checking the data in the questionnaire against the data in the codebook to identify any coding errors. Second, data in the computer file required cleaning. This was achieved by printing the data file and cross checking every piece of information on the printout with the original instruments for accuracy. Errors found in the computer file were corrected.

4.10 Pilot Study

According to Sarantakos[117] "a pilot study is a small-scale replication and rehearsal of the main study". The purpose of undertaking a pilot study is to discover any weaknesses and problems in all stages of the research so that the researcher can amend or change them before the main study is undertaken. With regard to the present research study the pilot study was undertaken to fulfil the following purposes.

1. To assist in determining the costs and duration of the main study and test the effectiveness of its organisation;
2. To test the research methods and the suitability of the research instruments;
3. To estimate the level of response for the main survey;
4. To gain information about the diversity or homogeneity of the survey population.

[117] S. Sarantakos, Social Research, p. 277.

Pilot studies vary depending on the methodology used. For example, in quantitative research pilot studies need to be well planned and executed in the same way that the main study is likely to be carried out. In the present study the pilot took several weeks to arrange including access to the survey population. The pilot study took place in June 2003. Questionnaires were distributed on Tuesday 24th June and the pilot study was declared complete on Tuesday 12th August after a period of seven weeks. Some questionnaires, however, arrived after the cut-off date of 12th August. These were included in the response rate. The size of the sample was 200 and the response rate was 26.5% (n=53).

4.10.1 Outcome of Pilot Study

As indicated above the pilot study had four specific purposes. Therefore, the results will be evaluated in the context of the purposes identified above. In response to the first purpose the results from the pilot study highlighted two important issues. Firstly, that it would be quite expensive to use a large sample for the main study. The reader may recall that the sample for the present research study was obtained through *An Bord Altranais* (Nursing Board). The regulations released by *An Bord Altranais* stated that no fee is charged for access to samples of 200 respondents or less. However, researchers who wish to use larger samples will be charged a fee. This fee was quite substantial considering that a sample of 2000 nurses was required. Secondly, the pilot study revealed that respondents did not always return completed questionnaires promptly. Thus, sufficient time will have to be allocated for data collection during the conduct of the main study. Planning and organising the pilot study did provide an insight into how the main study should be organised.

The second purpose of the pilot study was also achieved. The research method appeared appropriate and respondents did not report any difficulties with the instrument used. Only one minor change to the questionnaire booklet was necessary following the completion of the pilot study. The response categories for questions three through to ten in the biographical questionnaire were numbered. The third purpose of the pilot study was to estimate the level of response. As a guide social researchers are lucky to get a 20 percent response rate. The response rate for the present pilot study was 26.5%. The inference therefore, is to use a larger sample for the main study in order to increase the response rate. The final purpose of the pilot study was to obtain information about the diversity or homogeneity of the survey population. The pilot study revealed that 94.3% (n=50) of the sample was female. In addition, there was some diversity with regard to health board area in which employed, nursing education, place of employment, current position and length of time in current place of employment. Of course none of this is surprising when one considers that (a) this was a national sample and (b) the diverse nature of nursing.

4.11 Data Analysis Procedures

Having entered the data into the SPSS data file the next step is to analyse the data in order to determine patterns and relationships. The procedures used for analysing the data will differ depending on the choice of research approach used. A research study using a quantitative approach will create numerical data that fall into one of four categories. These four categories are nominal, ordinal, interval, and ratio. Nominal data are the lowest of the four categories in the sense that they allow little statistical manipulation compared with the other three types. Nominal data are used when data can be arranged into a particular category. For example, patients might be categorised

by diagnosis. In using such categories, however, the researcher is unable to say that the category "kidney stone" is higher than the category "ovarian cyst".[118]

Like nominal data, ordinal data can be assigned to categories but in this case the categories can be ranked. In order to rank data one category is judged to be higher or lower, or better or worse than another category. For example, if intensity of pain is being measured, one could identify different levels of pain. Interval data are like ordinal data, but the categories are ranked on a scale. The distance between the categories is a known factor. The researcher is able to deal with the data not only in terms of "more than" or "less than" but can also determine how much more or how much less. Ratio data are similar to interval data, except that the categories exist on a scale which has a "true zero" or absolute reference point. For example, incomes, distances and weights give rise to ratio data because the scales have a zero point.[119,120] The data obtained from the present research study can be categorised mainly as nominal and interval level data.

When the questionnaire booklet was examined to establish the type of data it would produce, the next step was to determine the type of statistical tests to be used. Quantitative data can be analysed using descriptive and or inferential statistical tests. Descriptive statistics are used to describe a particular sample or a particular subject in the sample. Descriptive statistics include frequency distributions, measures of central tendency, (mean, median, mode) and measures of dispersion (range, and standard

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[118] N. Burns, and S.K. Grove, Understanding Nursing Research, p. 254-256.

[119] M. Denscombe, The Good Research Guide: for Small-scale Social Research Projects, p. 177-180.

[120] S. Sarantakos, Social Research, p. 70-74.

deviation).[121] Inferential statistics refer to statistical tests that enable researchers to test hypotheses and draw conclusions about larger groups (population) from a sample statistic, if the sample was selected randomly. There are two types of inferential statistical tests; nonparametric and parametric. Nonparametric statistical tests are used for nominal or ordinal data, or when the size of the sample is small. Parametric statistical tests are employed for interval or ratio level data, when the size of the sample is adequate. Parametric statistics are more powerful than non-parametric statistics as they make assumptions about the data that are more rigorous. Some of these assumptions are addressed in section 4.11.3 of this chapter.

Inferential statistical tests measure differences between groups regarding the variable under investigation while the relationships among the variables under investigation are measured by correlational statistical procedures. The statistical tests used to analyse the data in this study were selected following statistical advice and discussions with supervisors and a statistician. Each statistical test used is described in section 4.11.2.

In contrast to quantitative studies which generate and analyse numerical data, qualitative studies collect and analyse non-numerical data. The present study collected non-numerical data from a focus group interview prior to the large questionnaire survey. The procedures used for analysing both types of data are now discussed.

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[121] L.A. Talbot, Principles and Practice of Nursing Research, p. 318-330.

4.11.1 Data Analysis Procedures for the Focus Group Interview

The data from the focus group interview were analysed using methods consistent with a qualitative design. Krueger[122] suggests several options for analysing focus group interviews and argues that one way to consider these options is to "place them on a continuum of time investment and rigour" (Figure 8). These options include, transcript-based analysis, tape-based analysis, note-based analysis and memory-based analysis.

The Analysis Continuum)[123]

Memory-Based Analysis	**Note-Based Analysis**	**Tape-Based Analysis**	**Transcript-Based Analysis**
Least Time Intensive			Most Time Intensive
Least Rigorous			Most Rigorous

Figure: 8

As indicated earlier in this chapter a dominant-less dominant mixed method design was used in the present study. In using this design the study is presented within a single dominant paradigm with one small component from the alternative paradigm. One purpose of combining methods in a single study is to use it developmentally, wherein one method is used sequentially to help inform the second method. The data

[122] R.A. Krueger, Focus Groups: A Practical Guide for Applied Research 2nd ed., (London: SAGE Publications, 1994), p. 126-156.

[123] Ibid., p. 145.

from the focus group interview was used for no other reason except to assist this researcher in selecting a theory of job satisfaction. When focus group interviews are used developmentally or as a preliminary technique, the analysis and reporting of the data are usually guided by the needs of the larger project. Furthermore, because the report from preliminary or exploratory focus groups will frequently be a brief account, the degree of rigour in the analysis is less than that required for self-contained[124] focus groups[125]. Consequently, it was decided that the findings from the focus group interview should be analysed using "Note-Based Analysis".

Note-based analysis relies mainly on notes made by the facilitator and the researcher during the interview, a debriefing session, and summary comments at the end of the focus group. The interview may be taped, but transcription of the tapes is only undertaken if more rigorous analysis is needed. The data from this focus group were analysed using the notes made by this researcher, the interview facilitator, and the notes from a debriefing session.

4.11.2 Data Analysis Procedures for the Questionnaire Survey

The quantitative data were analysed by computer using the Statistical Package for the Social Sciences (SPSS) version 11.[126] To assist in the selection of appropriate statistical tests the purpose of the present research study and the hypotheses were re-examined before analysis of the data. The statistical tests selected to analyse the data are now discussed.

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[124] Self-contained focus groups – a focus group is said to be self-contained because the results can stand on their own.

[125] D.L. Morgan, Focus Groups as Qualitative Research, p. 58.

[126] Statistical Package for the Social Sciences, SPSS for Windows Version 11, Chicago, Illinois: SPSS Inc., 2004.

Three different sets of analyses were undertaken. Firstly, the data were analysed using descriptive or univariate statistics. While some studies use descriptive statistics as the only method of data analysis, in the present study it was used primarily to describe the characteristics of the sample and to describe the values obtained from the measurement of variables. The descriptive statistics used include frequency distributions, measures of central tendency (mode and mean), measures of dispersion (range), and standardised scores (z-scores).

Secondly, the data were analysed using bivariate statistics. While univariate statistics examine single variables, bivariate statistics are used to explore differences among groups (e.g. male and female) and to examine relationships between two or more variables. In the present study, Pearson's product-moment correlation coefficient[127] was used to determine the strength and direction of relationships between variables. Specifically, bivariate correlation (correlation between two variables), also known as zero-order correlation, was used to analyse the data. Correlation analysis provides two types of information about the data: the nature of the relationship (positive or negative) and the strength (magnitude) of the relationship.

Pearson's correlation coefficient (r) varies from a magnitude of –1 to +1.[128] The sign in front indicates whether the correlation between the variables is positive (as one variable increases so does the other variable) or negative (as one variable increases the other decreases). The size of the value (ignoring whether positive or negative) indicates the strength of the relationship. A perfect correlation of 1 or –1 indicates

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[127] Parametric statistical test used to determine the strength and direction of the relationship between variables. This test is designed for interval level data.

[128] J. Pallant, SPSS Survival Manual, p. 115.

that the value of a variable can be established if the value of the other variable is known. On a scatter plot this relationship appears as a straight line. Conversely, a correlation of 0 indicates no relationship between the two variables. Even when the value of one variable is known, the researcher is unable to predict the value on the second variable.

An important factor to consider is the size of the value of Pearson's correlation (r). The value can range from –1.00 to 1.00. This value indicates the strength of the relationship between two variables. A correlation of 1.00 indicates a perfect positive correlation, a correlation of –1 indicates a perfect negative correlation, and a correlation of 0 indicates no correlation between the variables. How then can values between 0 and 1 be interpreted? Opinions among authors differ, however, Cohen[129] suggests the following guidelines.

r= .10 to .29 or r= -.10 to -.29	small
r= .30 to .49 or r= -.30 to -.49	medium
r= .50 to 1.0 or r= -.50 to -.1.0	large

These guidelines apply whether the correlation has a positive or negative (r) value. The negative sign refers only to the direction of the relationship not the strength. The strength of correlation r= .4 and r= -.4 is the same.

Another factor to consider is the significance level of the Pearson's correlation (r). According to Pallant[130] "this is a very 'messy' area, and should be treated cautiously." The significance of 'r' is influenced by the size of the sample. Small samples (N=30)

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[129] J.W. Cohen, Statistical Power Analysis for the Behavioural Sciences (New York: Academic Press, 1969), p. 105-112.

[130] J. Pallant, SPSS Survival Manual, p. 121.

may result in moderate correlations that are not statistically significant at the traditional $p < .05$ level. Larger samples (N=100+), however, may produce very small correlations that may be statistically significant. The recommendation for researchers is to report the significance level but ignore it, and to concentrate instead on the amount of shared variance.

To determine the amount of variance two variables share the coefficient of determination needs to be calculated. To calculate this the 'r'-value is squared. Then, to convert this value to 'percentage of variance' multiply by 100 (shift the decimal place two columns to the right). For example, two variables that correlate r=.2 only share 4 percent of their variance (.2x.2=.04x100=4). The coefficient of determination gives the proportion of variance in one variable that is explained by the other variable. The remaining amount of variance, not explained by the other variable, is referred to as the coefficient of non-determination and is the difference between 1 and the coefficient of determination (the two coefficients must add up to 1). For example, if the coefficient of correlation is .2 the coefficient of determination is .04, and the coefficient of non-determination is .96. Consequently, the two variables share 4 percent of variance. The remaining 96 percent cannot be explained by the correlated variables.[131,132]

Other statistical tests used in the bivariate analysis in the present study include independent-samples t-test and one-way between-groups analysis of variance (ANOVA). An independent-samples t-test is used to compare the mean scores of two different groups of people. To conduct this test two variables are needed; one must be

[131] Ibid.

[132] S. Sarantakos, Social Research, p. 379.

a categorical independent variable and the other an interval or ratio dependent variable. This procedure was selected because this researcher wanted to establish whether there was a statistically significant difference in the scores for different groups (e.g. females and males with regard to job satisfaction). A notable strength of the t-test is that the two groups under examination do not have to be exactly the same size.[133]

One-way between-groups analysis of variance (ANOVA) with post-hoc tests was used also. This statistical test was chosen because it indicates whether there are significant differences in the scores on the dependent variable across the different groups (e.g. age groups) under investigation. ANOVA, however, does not report which group is different from the other. Thus, post-hoc tests were included in the SPSS analysis procedure in order to fulfil this requirement.

Thirdly, the data were analysed using multiple regression analysis. Multiple regression refers to a set of techniques rather than just one technique. It can be used to examine the relationship between one dependent variable and several independent variables. Multiple regression is based on the principles of correlation but is able to undertake a more sophisticated exploration of the relationships of a set of variables. Used correctly multiple regression can provide information on how well a particular set of variables is able to predict a particular outcome. For example, this researcher is interested in establishing how well organisational climate and biographical factors are able to predict job satisfaction.[134] There are different types of multiple regression. These include: standard or simultaneous, hierarchical or sequential, and stepwise. In

[133] M. Denscombe, The Good Research Guide, p. 202.

[134] J. Pallant, SPSS Survival Manual, p. 134-150.

the present study standard multiple regression was selected. This technique is the most commonly used multiple regression analysis. This approach was selected because this researcher wanted to know how much variance in the dependent variable (job satisfaction) could be explained by the independent variables (biographical factors and organisational climate) as a group or block.

4.11.3 Assumptions Underlying the Use of Parametric tests

Most statistical tests have a number of assumptions underpinning their use. Some of these assumptions apply to all the parametric techniques outlined (t-tests, analysis of variance, Pearson product-moment correlation) while others are associated with specific statistical tests. The general assumptions are addressed in this chapter while the more specific assumptions are reported with the results of the statistical tests in Chapter Six. The general assumptions are addressed now include level of measurement, random sampling, independence of observations, normal distribution, linearity, and homogeneity of variance.

1. Level of measurement – the parametric statistical tests used to analyse the data in the present study assume that the data being measured is at the interval or ratio level. In the present study the independent variable was measured at the interval level.

2. Random sampling – the statistical tests used assume that a random sample was used. The sample used in the present study was selected using a random sampling technique.

3. Independence of observations –the parametric tests used to analyse the data in the present study assume that the observation or measurement are independent of each other. In other words, each measurement must not be influenced by any other

measurement. This assumption of independence could be violated if for example this researcher had circulated questionnaires to all nurses working in the same unit or hospital and where respondents had the opportunity to engage in some form of interaction with each other before completing their questionnaires. In the present study, it is unlikely that this could have occurred given that (a) no individual hospital or unit was selected to participate in the study and (b) respondents completing the questionnaire were selected using a national random sample.

4. Normal distribution –parametric statistics assume that the population from which the sample was drawn is normally distributed. If the sample is large enough (e.g. over 30), the violation of this assumption should not cause any major problems.[135]

5. Linearity – when using the correlation coefficient such as Pearson r, the relationship between the variables should be linear. Thus, the scatterplot[136] of the scores should be roughly in a straight line.

6. Homogeneity of variance – statistical tests such as t-tests and analysis of variance assume that samples are drawn from populations of equal variances. This means that the variance in scores is the same for each of the groups under investigation. To test this, SPSS performs the Levene test[137] for equality of variances as part of the analysis for the t-tests and analysis of variance. The result one hopes to get is that Levene's test is not significant (that is, a significance level of greater than **.05)**. If a

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[135] Ibid., p 172.

[136] Scatterplots are used to explore whether the relationship between two variables are linear. Correlational analysis can only be used if the relationship is linear (scores roughly in a straight line).

[137] This test is performed within SPSS to test whether the variance of scores for the groups under investigation is the same.

significance value of less than .05 is obtained, this suggests that variances for the groups are not equal, indicating that the assumption of homogeneity of variance has been violated. If this occurs, however, there is a solution. For the t-test two sets of results are provided by SPSS: one set for when the assumption is not violated and the other for when the assumption is violated. All the researcher has to do is select the appropriate set of results for their data.

4.11.4 Decision Theory and Level of Significance

Decision theory assumes that all groups within a study used to test a particular question or hypothesis are members of the same population. The researcher's task is to provide evidence that, in fact, there is a difference between the groups. To test the assumption of no difference, a cut-off point is selected prior to data analysis. The cut-off point is referred to as alpha, or significance level. The significance level "is the probability level at which the results of statistical analysis are judged to indicate a statistically significant difference between the groups."[138] In nursing research significance levels are frequently set at the .01 or .05 level.[139] This means that for a .01 significance level there is a 99% chance of arriving at a correct conclusion having analysed the data. When a .05 significance level is used the researcher has a 95% chance of reaching a correct conclusion. Stated another way a .05 significance level expands the probability error to 5%. For this study the significance level was set at .05.

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[138] N. Burns, and S.K. Grove, Understanding Nursing Research, p. 299.

[139] Ibid.

4.12 Data Presentation

The process of transforming a huge amount of raw data into tables and charts is an essential part of "making sense of the data."[140] The purpose of producing tables and charts is to communicate information in a succinct and visually appealing manner. All tables and charts have been given a title, to indicate what the data are reporting and where appropriate their content explained or interpreted.

4.12.1 Presentation of Data from the Focus Group Interview

Focus groups can be used as either a self-contained research method (results of the research can stand on their own) or in conjunction with other methods. In the present study the focus group was used as a preliminary, exploratory technique. As such, the analysis of the data was not as extensive as that required had the focus group been used as a self-contained focus group. Note-based analysis (analysis that relies mainly on notes and summary comments at the end of the focus group) was the technique used to analyse the data in the present study and the data were presented using a "grid". This grid was used to present a summary of the responses given by participants in response to each of the questions contained in the interview schedule.[141] Given that the focus group was used as an exploratory technique the results are not being reported as part of the findings from the overall study. Therefore, the findings from the focus group are presented in the present chapter.

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[140] M. Denscombe, The Good Research Guide, p. 182.

[141] D.L. Morgan, Focus Groups as Qualitative Research, p. 58-59.

4.12.2 Presentation of Data from the Questionnaire Survey

The most common methods of grouping and presenting quantitative data are distributions, tables and graphs. This allows data to be integrated in a form that provides a summary of the information about the research topic.[142] The data from the questionnaire survey are presented using tables, graphs and matrices.

4.13 Ethical Considerations

Research is a dynamic process which involves not only researchers but also respondents. It is based on mutual trust and cooperation, promises, and well-respected conventions. On the basis of this, researchers enter the research arena with very few limits and several options for action. This freedom of action has always been considered to offer the best chances for solving the problem being investigated or answering the research questions.

Research evidence, however, suggests that such freedom can violate the rights of respondents involved in a research study. Some researchers try to justify such a violation on the grounds that the findings from a study might offer benefits to the public and therefore outweigh any discomfort or hardship experienced by a small number of respondents. An example of a research project in which the rights of participants were violated was *The Tuskegee Experiment* in the U.S.A.[143] The United States Public Health Service initiated a study of syphilis in African-American men in Tuskegee, Alabama in 1932. The study lasted for about 40 years and was undertaken to determine the natural course of syphilis among adult African-American men.

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[142] S. Sarantakos, Social Research, p. 329.

[143] G. Lo-Biondo Wood, and J. Haber, Nursing Research methods: Methods, Critical Appraisal, and Utilisation 3rd ed., (St. Louis, Baltimore: Mosby, 1994), p. 316.

Many of the subjects who participated were not informed about the purpose and procedures of the research. Others were unaware that they were participating in a study. By 1936, it became known that the men with syphilis had developed more complications than those in the control group. Ten years after the study began the death rate among those with syphilis was twice as high as it was for the control group. During the study the subjects were examined periodically but did not receive treatment for syphilis, even though penicillin was known to be an effective treatment for the disease. Information about an effective treatment for syphilis was not given to these men and deliberate steps were taken to prevent them receiving treatment. Reports from this study began to appear four years after the study commenced yet no effort was made to stop the study. A report in the Washington Star in 1972 caused public outrage, and only then did the Department of Health, Education and Welfare stop the study. A subsequent investigation found the study to be ethically unjustified.

While many researchers uphold promises and avoid all violation of the rights of subjects, others may well believe that "the end justifies the means."[144] Consequently, there may well be researchers who continue to abuse the privileges of their position and undertake research that violates the rights of human subjects. Research is being undertaken not only more frequently but is becoming more intrusive and pluralistic (several researchers involved in the same project). Therefore, the need for some regulation of the research process beyond self-regulatory mechanisms has become a necessity. Many academic institutions, hospitals and professional bodies have developed guidelines that specify the limits of freedom in research and define the rights of all those participating in research studies.

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[144] S. Sarantakos, Social Research, p. 22.

Given the importance of ethics in research, an ethical framework was developed to guide the present study. This was achieved by combining four ethical principles and the ethical standards used in the professional practice of research as outlined by Sarantakos.[145] The framework was constructed in two parts. Part A is based on four ethical principles while Part B utilised the ethical standards in professional practice. Ethical principles assist individuals in making judgements about their actions and therefore assist in resolving moral dilemmas. Beauchamp and Childress[146] identify four main ethical principles. These are autonomy, nonmaleficence, beneficence and justice. Briefly, the principle of autonomy refers to the ability of an individual to make a decision free from coercion from others. The principle of nonmaleficence states that no risk or harm should be inflicted on another person. The principle of beneficence demands that an individual should act in ways that promote the welfare of others, while the principle of justice stipulates an obligation to treat others fairly. The second component of the framework was based on the ethical standards used in the professional practice of research. These standards take into account some of the stages of the research process and the researcher-respondent relationship. The framework is contained in Table 9.

4.13.1 Need for an Ethical Framework

A review of the research ethics literature has revealed several reasons why researchers should use an ethical framework to guide their research projects. Firstly, an ethical framework makes explicit the foundation on which the relationship of trust between

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[145] Ibid., p. 21-25.

[146] T.L. Beauchamp, and J.F. Childress, Principles of Biomedical Ethics 3rd ed., (Oxford: Oxford University Press, 1989).

the researcher and respondents was established.[147] Secondly, a framework of ethical principles can assist individuals in undertaking morally appropriate actions.[148] Thirdly, ethical frameworks act as a guide to ethical decision-making throughout the research process.[149] Finally, Evans and Evans[150] considers research subjects to be "vulnerable volunteers" and argue that if this description is correct, then all research subjects are worthy of respect and protection. This, according to these authors, is the primary task of ethical review.

4.13.2 Justification for a Principle-based Framework

The rationale for deciding to use a principle-based framework rested on the assumption that the ethical principles of autonomy, nonmaleficence, beneficence and justice offer a sound basis for research involving human subjects. Moreover, nurses in clinical practice use these same ethical principles to promote and safeguard the interests of patients. The components of the principle-based framework as it applies to the present study are explained in Part A of Table 9.

In addition to using ethical principles to formulate a framework many researchers are also guided by standards that take into account the stages of the research process. The issues identified by Sarantakos[151] were also given due consideration during the conduct of this research study and were combined with the ethical principles in

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[147] Royal College of Nursing, Research Ethics: Guidance for Nurses Involved in Research or any Investigative Project Involving Human Subjects (London: RCN Research Society, 1998).

[148] T.L. Beauchamp, and J.F. Childress, Principles of Biomedical Ethics, p 25.

[149] M. Cerinus, "The Ethics of Research," Nurse Researcher 8: 3(2001): p. 72-81.

[150] D. Evans, and M. Evans, A Decent Proposal: Ethical Review of Clinical Research (Chichester: John Wiley, 199), p. 13, 16-17.

[151] S. Sarantakos, Social Research, p. 23.

preparing the ethical framework for this study. These are explained in Part B of Table 9.

The next step was to operationalise the ethical framework. To achieve this an ethical protocol was developed. An ethical protocol clarifies the rights of those participating in research studies and sets out the responsibilities of the researcher. It is guided by the principles set out in the ethical framework. A copy of this protocol was included in (a) the information pack given to nurses who participated in the focus group interview and in (b) every survey pack used in the questionnaire survey.

Ethical Framework

Part A of Ethical Framework			
Ethical Principle	**Explanation**	**Relationship to this Study**	**Violation of Principle**
Autonomy This principle states that individuals are free to make decisions.	Based on this ethical principle, all individuals should be treated as autonomous agents who have the freedom to make choices without external pressures. In any research study an autonomous person is one who is informed about a proposed study and is given the opportunity to decide whether they wish to participate in a study. Respondents also have the right to withdraw from the study at any time without penalty. Respondents with reduced autonomy must also be protected. Because of age, legal or mental incompetence, terminal illness, or confinement to an institution these subjects are more vulnerable. Therefore, researchers must justify their use of vulnerable subjects in any research study.	This principle underlies several research issues. The first issue concerns free and informed consent. Adequate information regarding the purpose of the study was provided for the participants of the focus group and to respondents involved in the questionnaire survey. Participants of the focus group were asked to sign a consent form. With regard to the survey, the return of completed questionnaire booklet indicated consent. The second issue is that respondents must choose to participate of their own free will. At no time were they coerced by this research to participate in the present study. Issues of confidentiality and anonymity are also associated with the principle of autonomy. All data collected were treated confidentially and subjects' identity cannot be linked to any individual responses. The principle of autonomy also means that any individual may withdraw from the study at any time without penalty. All participants and subjects were informed of this.	A respondent's right to autonomy is violated if coercion is used, if data is collected in a covert manner and through deception.
Nonmaleficence This principle states that an individual should neither intend nor permit risk or harm to others.	Based on the ethical principles of nonmaleficence and beneficence researchers must prevent harm and promote good in their research studies. Discomfort or harm can be physical, psychological, social or economic in nature.	In research risk or harm is defined as exposure to injury beyond everyday situations and include physical, emotional, and financial. At no time during the focus group interview did participants report any discomfort and it is not anticipated that participating in the questionnaire survey will lead to any known risks or harm.	A respondent's right to protection is violated when researchers are aware that harm, death or disabling injury will occur from participating in a study. In such a study, the benefits do not outweigh the risks.
Beneficence This principle states that an individual should promote the well being of others.	Based on the ethical principles of nonmaleficence and beneficence researchers must make every effort to prevent discomfort or harm and promote good in their research studies. Discomfort or harm can be physical, psychological, social or economic in nature.	All research studies should balance the associated benefits and potential risks to respondents. Benefits should always outweigh the risks. The findings of this study could benefit the nursing profession by advancing our understanding of the relationship between organisational factors and job satisfaction.	A respondent's right to protection is violated when researchers are aware that discomfort, harm, disabling injury, or death will occur from participating in a study. In such a study, the benefits do no outweigh the risks.
Justice This principle states that one should treat others fairly.	According to the ethical principle of justice, all people should be treated fairly and should receive what is owed or due to them. In research fair treatment	With reference to this research study all respondents and participants were treated fairly. Stratified random sampling was used for the survey and respondents were not excluded	In the past injustices with regard to the selection of subjects have occurred because of social, cultural, racial and gender biases in

	refers to equitable selection of respondents and treatment during the conduct of a research study. This means that respondents should be selected for reasons related to the purpose of the study and not for convenience or vulnerability. Fair treatment also includes an equitable distribution of risks and benefits irrespective of age, race, or socio-economic group.	on grounds of age, sex or nationality.	society. Historically, research subjects have been selected from groups of people who were regarded as having less "social value" and include the poor, prisoners, mentally incompetent and the dying.
Part B of Ethical Framework			
Ethical Standards Essential to the Professional Practice of Research	**Explanation**	**Application to this Study**	**Violation of Standards**
Accuracy in Data Collection	Researchers are expected to collect and process data using high professional standards and a systematic and objective procedure.	Data for this study were collected in an objective and systematic manner using acceptable research standards. These were discussed earlier in this chapter.	Researchers have a responsibility to uphold this standard. Failure to do so constitutes a violation. .
Suitable Research Methodology	Methods and procedures selected must be directed by the purpose of the research and not for other reasons.	The research method chosen for this study was consistent with the purpose of the study and not for other reasons.	Researchers have a responsibility to uphold this standard. Failure to do so constitutes a violation.
Appropriate Interpretation of Data	Researchers are expected to interpret the data in full and according to methodological standards.	The data were interpreted as accurately as possible and in accordance with the methodological standards chosen for this research study. A statistician was consulted to assist in the appropriate choice of statistical analysis. Finally, the results of this study were interpreted in light of previous research.	Researchers have a responsibility to uphold this standard. Failure to comply constitutes a violation.
Accurate Reporting	Research findings must be reported accurately and in an unbiased manner. In addition, the methods used to collect and analyse the data must be discussed. Any errors or limitations known to the researcher must be reported.	To the best of her knowledge this researcher reported the findings accurately and objectively and explained the methods used in data collection and analysis. Limitations were identified and reported.	Researchers have a responsibility to uphold this standard. Failure to do so constitutes a violation.
Fabrication of Data	Fabrication of data is misconduct and researchers must not publish findings on data that they did not collect.	Findings based only on data collected during the conduct of this study were reported.	Researchers have violated this standard if they fabricate data.
Falsification of Data	Falsification of data is misconduct. Researchers must refrain from falsifying data.	This researcher did not falsify any of the data presented.	Researchers have violated this standard if they falsify data.

Table: 9

ETHICAL PROTOCOL USED TO GUIDE THIS RESEARCH STUDY

Rights of Subjects

All researchers have a responsibility to set out clearly how the rights of research participants or subjects will be protected. By agreeing to participate in this study each individual has the following rights.

Right to Self-Determination
This right implies that as a human being you are treated autonomously. You have the opportunity to choose whether to participate in this study and your choice must be free from coercion. This right also allows you to withdraw from the study without penalty. Another requirement of autonomy is the provision of adequate information about the study. Enclosed in this survey packet is an information sheet which provides information on the purpose of the study, the study design, sample strategy, data collection procedures, type of analysis and the possibility of publication following the conclusion of the study. Should you require further information please feel free to contact me at the number given below.

Right to Privacy
This right allows you to determine the extent and circumstances under which private information is shared with others. One's attitudes, beliefs, opinions and records are all regarded as private information. When private information is disclosed without an individual's consent an invasion of privacy is said to have occurred. Therefore, by participating in this study you have agreed to share the information contained in these questionnaires with the researcher.

Right to Anonymity and Confidentiality
The right to privacy underpins the right to anonymity and the right to confidentiality. In this study complete anonymity is assured, as your identity cannot be linked with your responses. Confidentiality will be maintained by adhering to the following procedures. (a) Access to the raw data will be restricted to the researcher and statistician (b) all information will be kept in a locked cabinet and computer file that is pass-word protected (c) data from this study will be analysed collectively and (d) results will be published collectively making any link between respondents and their responses virtually impossible.

Right to Fair Treatment
This right stems from the ethical principle of justice. This principle stipulates that people should be treated fairly. One area in which violation of this principle could occur is in sample selection. Subjects should be selected in order to fulfil the criteria of a study and not because of easy availability, manipulability or friendship with the researcher. To eliminate such an injustice subjects for this survey were selected using systematic random sampling. In addition, all subjects who participate in the study will be treated fairly regardless of age, sex, race, or educational level.

Right to Protection from Harm and Discomfort

These rights are based on the principles of nonmaleficence and beneficence. Nonmaleficence means that an individual should not intend nor permit harm to another person. Therefore, research that can result in direct harm to subjects should not be undertaken. Beneficence suggests that an individual should act to prevent or remove harm to another person. In research harm and discomfort can be physical, emotional, social and economic. During this questionnaire survey the researcher will not interact directly with the subjects. Therefore, no anticipated effects on subjects are likely. Although participation in this study may not benefit subjects directly it will undoubtedly benefit the nursing profession. The findings from this study should advance our understanding of job satisfaction among nurses but more importantly, it should help to explain the relationship between organisational climate and job satisfaction.

Integrity of this Researcher

Nurse researchers must have knowledge and skills that will allow them to fulfil the demands of their research studies. I can inform you that as a nurse researcher I do possess knowledge and skills about the research process and have undertaken several research projects. In addition, the present study is undertaken under the supervision of two experienced researchers at the University of Dublin, Trinity College. This is important for maintaining professional credibility.

Researchers should inform sponsors or supervisors of any relevant prejudices that may influence their research. I have informed my supervisors that I have no personal prejudices that may influence this research study.

Researchers must indicate in their final report whether their involvement may have affected the subjects and, consecutively, the validity of the data. My role as the researcher in this study has, to the best of my knowledge, had no effect on subjects. The sample, as stated earlier, was selected using systematic random sampling which means that even if a subject may know me I have no way of identifying these individuals because no names or identification numbers were used on the questionnaires.

All researchers have a responsibility to disseminate the results and promote the use of their research. Therefore, it is my intention to publish the results of this study. In preparing reports for publication the contributions of others will be duly acknowledged and any limitations of the research will be discussed. Be assured that the results will be published collectively and as a subject you will remain completely anonymous.

Should you require any further information please do not hesitate to contact me at the number below.

Telephone Number: 6083533

4.14 Report on the Conduct and Outcome of the Focus Group Interview

The research design used in the present study utilised a dominant-less dominant mixed method design. In this design the study is presented within a single dominant paradigm (which is quantitative in the present study) with one small component from the alternative paradigm. The focus group interview represents the small component from the alternative paradigm. One purpose of combining methods in a single study is to use it developmentally, wherein one method is used sequentially to help inform the second method. When focus group interviews are used developmentally or as a preliminary technique, the analysis of the data requires less rigour than that used for a self-contained focus group. In view of this, the findings from the focus group interview are presented in this chapter rather than in Chapter Five.

4.14.1 Introduction

A focus group is a well-planned discussion designed to obtain participants' perceptions of a specific topic in a non-threatening environment.[152] There are three main uses for focus groups in social science research. Firstly, they can be used as a self-contained method in studies in which they are the main source of data. Secondly, they are used as a supplementary source of data in studies, which use another primary method such as a survey. Thirdly, they are used in multi-method studies that combine two or more methods of collecting data.[153]

In the present research study the focus group interview had two main purposes. Firstly, to explore nurses' views, experiences and perceptions about their work, the

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[152] R.A. Krueger, Focus Groups: A Practical Guide for Applied Research, p. 6.

[153] D.L. Morgan, Focus Groups as Qualitative Research, p. 2.

organisation where they worked and the factors that contributed to their job satisfaction. Secondly, to use the focus group developmentally, wherein the results would be used to assist in selecting a suitable theory of job satisfaction.

The focus group was conducted on Thursday 18th April 2002. The interview commenced at 10.00 hours and lasted two and a half hours. The venue was a seminar room in the School of Nursing & Midwifery Studies, Trinity College. The original number of participants recruited was seven but only six participated. One participant had to withdraw due to work commitments (night duty). None of the participants reported any difficulties finding the interview venue and all appeared keen to participate in this phase of the study. After reading all the information provided participants were reminded that as volunteers they could still withdraw from the study if they so wish. All agreed to participate and duly signed the consent form.

This report consists of six main sections. The introduction reminds the reader of the research design used in the study, defines focus group, explains the main uses of focus group interviews, outlines the purpose of conducting this focus group and provides information about the time and place of the interview. The next section describes how the interview content was prepared, explains how participants were selected, discusses how the interview was facilitated and explains the ethical standards used during the conduct of the focus group. The third section summarises the findings. Note-based analysis was used to analyse the focus group interview and a descriptive summary of additional comments given by participants is included. The fourth section discusses the observations made by the independent observer, while the fifth section reports on the limitations of focus group interviews. The final section offers

the reader a summary of the main findings and indicates whether the focus group was successful in achieving its purpose.

4.14.2 The Process of Conducting Focus Group Interviews

In planning any focus group interview, three stages are essential. These are planning, conducting the focus group, and analysing and reporting.[154] Within each of these stages there are activities that require action. The planning stage is crucial to success. In this stage, due consideration was given to the purpose of the study but more importantly to the purpose of the focus group. In addition, attention was given to issues regarding the content of the interview and the selection of participants. The conducting stage explained how the interview was to be conducted. The analysis and reporting stage is the final stage of the focus group process. The data were analysed and the results reported. With regard to the present study, these three stages are now discussed in detail.

Planning Stage: Interview Content

Before attempting to gather information from any interview it is important that some attention is given to the content. The objective is to prepare an interview that covers the topic adequately. Merton *et al.*[155]recommend four criteria for an effective focus group interview. These include the following: (a) a maximum range of topics to be covered, (b) data should be as specific as possible, (c) issues should be explored in

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[154] R.A. Krueger, Focus Groups: A Practical Guide for Applied Research, p. 39.

[155] R.K. Merton, M. Fiske, and P.L. Kendall, The Focused Interview 2nd ed., (New York: Free Press, 1990).

depth in order to ensure involvement by participants, and (d) give attention to the personal context that participants use in giving their responses to the topic.

(a) Maximum range of relevant topics – successful focus groups discuss a range of topics. The discussion should not only cover issues that the researcher already know to be important but also issues that the researcher had not anticipated. According to Merton *et al.*, researchers often narrow the discussion by presuming which issues are important. In the present study, this was avoided by not cueing the participants. Instead, they were encouraged to describe their perceptions of the issues and draw on their experiences.

(b) Data should be specific - here the emphasis is on obtaining detailed accounts of the participants' experiences. Occasionally, the discussion in a focus group can drift away from the main topic. To avoid this tendency, participants in the present study were asked questions about their experiences with the topic.

(c) Explore issues in depth – the discussion should foster interaction that explores participants' feelings in some depth. The goal is to avoid a discussion that is too general and vague. In the present study, participants were encouraged to share personal experiences in order to generate a level of depth to the discussion and involve all participants in the interaction.

(d) Personal context from which participants' responses arise - in other words, what causes a particular participant to respond or express things in a particular way? These perspectives and personal contexts may be due to the social roles occupied by participants. Many individuals are unaware of their own perspective on a topic until

they interact with others. Generating such interactions through a focus group interview provides data that are difficult to obtain through other research methods.

Another task in planning a focus group is to decide the duration of the interview. The estimated length of this interview was two hours but respondents were informed that the discussion would last two and a half hours. This extra half-hour meant that participants had enough time to read the material in their information pack and also allowed for disruptions from late arrivals or early departures.[156] Within this time frame the facilitator managed to maintain the focus of the discussion by not exploring too many topics or issues. The interview followed a semi-structured format. While there was a list of questions to be answered, the facilitator had the opportunity to be flexible in terms of the order in which the questions were considered.[157] In using this format the recommended number of questions or topics is usually between four and five.[158] In the present study, six questions were prepared for the focus group interview and because a semi-structured approach was used, an interview schedule was prepared. A copy of this schedule can be found in Appendix 1 B.

The interview guide was prepared using questions rather than a set of discussion topics. This format is quite popular in structured or semi-structured focus groups.[159] It is important to stress that although a semi-structured format was used the focus group was not a facilitator-dominated discussion. The intention was for the facilitator to use the guide as an aid to creating a balance between the researcher's focus and the

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[156] D.L. Morgan, Focus Groups as Qualitative Research, p. 47.

[157] M. Denscombe, The Good Research Guide, p. 113.

[158] D.L. Morgan, Focus Groups as Qualitative Research, p. 45-48.

[159] Ibid., p. 47.

group discussion. The person selected to facilitate this focus group was experienced in conducting similar interviews and the issues outlined here were discussed with him prior to the interview. The questions contained in the interview schedule were formulated following a review of the literature. Examples of prompts were included in the interview schedule but they were not used during the conduct of the focus group interview. The prompts were based on organisational factors and job attitudes relevant to nurses and were sourced from the literature.

Planning Stage: Selecting Participants

In selecting participants for a focus group it is often more important to consider minimising sample bias rather than achieving generalisability. Regardless of the sampling method used, there is always a chance that sampling bias could occur.[160] Such bias is only a problem if ignored – that is, if the data from a limited sample are interpreted as representing the experiences and opinions of a larger population. The shift away from generalisability also means a shift from random sampling. Random sampling is seldom used in selecting participants for focus groups. Two reasons are offered for this. First, the small number of participants involved in focus groups means that it is unlikely that such a sample would be adequate to represent larger populations, regardless of random selection. Second, a random sample is unlikely to have a shared perspective on a topic and may not even be able to contribute in a meaningful way to the discussions. Therefore, the participants for this focus group were selected purposively.[161]

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[160] L.A. Talbot, Principles and Practice of Nursing Research, p. 243.

[161] D.L. Morgan, Focus Groups as Qualitative Research, p. 35.

Several strategies may be used for identifying participants for focus group interviews. Kruger[162] suggests that no individual selection process is perfect. Participants for this focus group were selected from two lists of students held by the University of Dublin, Trinity College. The first list consisted of students currently attending a degree course and yielded the majority of participants while the second list consisted of students who had completed their studies. Students currently attending the University were informed about this research study at the beginning of their degree course, while those who had completed their studies were contacted by telephone. Participation was completely voluntary.

Controlling the composition of the group to match chosen categories of participants is known as segmentation. Segmented samples are linked to homogeneity in the composition of focus groups and according to Morgan,[163] homogeneous samples not only allow for more "free-flowing" discussions within the group but also facilitate comparative analysis between groups. To be included in the focus group, participants had to be qualified nurses who had either undertaken or were currently undertaking a university degree course. In addition, participants had to be in continuous employment for a minimum of six years. The rationale for this decision was based on the assumption that if participants have been working as nurses for at least this duration of time and were undertaking further study, then all would have something to contribute to the topic and feel comfortable saying it in the presence of each other. Moreover, wide gaps in the number of years working as a nurse may defeat this requirement. It is important to stress, however, that the goal is homogeneity in

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[162] R.A. Krueger, Focus Groups: A Practical Guide for Applied Research, p. 82.

[163] D.L. Morgan, Focus Groups as Qualitative Research, p. 35.

number of years working as a nurse not homogeneity of attitudes or views. Finally, this researcher decided that the group would consist of strangers rather than acquaintances. The rationale for this decision was simple. The use of acquaintances could restrict the free flow of the discussion in one of two ways. First, participants could by mutual agreement decide not to discuss certain issues and second, some participants may be afraid that acquaintances might disagree with their comments.[164]

Conducting the Focus Group Interview

The facilitator opened the session by introducing himself, the researcher and the independent observer. The topic was introduced in a general fashion and the purpose of the focus group stated. Rules about the conduct of the interview were then explained. The facilitator started the interview with a few general or warm-up questions. This part of the interview lasted approximately 25 minutes. The interview schedule contained six questions and these were asked in the same order in which they appeared in the schedule. For further details on the length of time allocated to each section of the interview, please refer to the interview schedule in Appendix 1 B.

In starting the actual discussion, a main objective was to get a response from each participant to the first question. An important reason for trying to secure a response from everyone is that it helps to discourage the tendency for some participants to suppress their disagreements in favour of agreeing with the group. One activity that was used by the facilitator to encourage all to participate in the discussion was to ask participants to take a few minutes to write their thoughts on the cards provided. During the interview the facilitator had the freedom to probe more deeply where

[164] Ibid., p. 37-38.

necessary, skip over issues that had been discussed earlier, and pursue new issues if they arose. In addition, the facilitator checked that he understood correctly the information given by participants on an ongoing basis throughout the interview.

Concluding the Focus Group Interview

Just as moving between the introduction to the main discussion presents a clear beginning to the focus group, the facilitator should also indicate when the session is nearing the end. To accomplish this a "cool off period" was included in the interview schedule. The facilitator summarised the main points discussed and all participants agreed that the summary was an accurate record. In addition, the facilitator asked participants whether they had any additional points they wished to make. This offer was taken up and additional points were discussed. Participants were thanked for their contribution and the facilitator brought the interview to an end after he had reiterated issues regarding confidentiality and anonymity.

Ethical Considerations

Ethical considerations with regard to the conduct of this focus group were addressed. Information packs were prepared for participants. Each pack contained information about (a) ethical standards in research practice, the researcher-respondent relationship, which included a statement on how anonymity and confidentiality will be maintained throughout this research project (b) a consent form, (c) information outlining the research problem, purpose of the research, purpose of focus group interview and justification for this study. Most of this information was addressed earlier in this dissertation. A copy of the consent form can be found in Appendix 1 D.

4.14.3 Findings from the Focus Group Interview

The purpose of this section is to report the most important issues to emerge from the focus group interview. As stated previously this focus group was used developmentally, whereby the information from the group discussions was used to help inform a larger phase of this study. When focus groups are used developmentally the analysis and reporting of the data are directed by the needs of the larger portion of the research project and therefore, will not require the same depth of analysis as is required "in a set of self-contained focus groups". [165] In view of this it was decided to use note-based analysis. Note-based analysis, as stated earlier in this chapter, depends mainly on notes made during the interview, a debriefing session and additional comments at the end of the focus group. It is important to emphasise that while both the individuals in the group and the dynamics of the group are important when reporting the outcomes, in this instance the group not the individual was the main focus in presenting the findings of this focus group interview.

According to Krueger[166] numbers and percentages must be used with caution when reporting the findings of focus groups. The reason for this is that numbers can give the impression that the findings can be generalised to a population, and this is beyond the capabilities of qualitative research procedures. In view of this, the use of numbers or percentages was avoided in reporting these findings. The results presented here are organised around the key questions asked during the focus group and are presented in

[165] Ibid., p. 58.

[166] R.A. Krueger, Focus Groups: A Practical Guide for Applied Research, p. 154.

both bulleted and descriptive formats. Knodel, [167] suggests the use of a grid that summarises systematically what was said in response to each question. This approach was originally used as an appropriate method for describing the analysis of data when several focus groups are used and particularly when the groups are separated into segments, as this facilitates comparisons across different segments. Despite its original uses it was decided to present the data from this focus group using a grid. The findings are presented in the following order: (a) summary of focus group interview findings (b) additional comments made by participants before the interview ended and (c) biographical data.

[167] J. Knodel, "The Design and Analysis of Focus Group Studies: A Practical Approach," in Successful Focus Groups: Advancing the State of the Art, ed. D.L.Morgan (Newbury Park, California: Sage, 1993), p. 35-50.

Summary of Findings from the Focus Group Interview

Questions	Issues Raised and Discussed by Participants
Q1 One of the issues we are particularly interested in is how satisfied nurses are with their work. Can you share with us your views and experiences about your work?	Ownership Autonomy Support from management Knowing patients are satisfied Satisfaction from working in speciality of choice Teamwork Peer respect and recognition Pay and conditions including work hours and opportunities for job sharing Recognition of staff needs for development and assistance. Being listened to and responded to
Q2 We would now like you to rank the work related factors you have identified in order of importance (1 = most important ? = least important)?	1.Satisfaction from working in speciality of choice 2 a Knowing patients are satisfied 2 b Teamwork 3 Support from management 4. Autonomy and ownership 5. Recognition of staff needs for development and assistance 6. Being listened to and responded to 7. Pay and conditions including work hours and opportunities to job share
Q3 Can you tell us about those factors at work that cause you to be less satisfied?	Lack of control over staff numbers Lack of continuity in service Increased workload Having to contend with multiple roles Not being able to provide quality care because of shortage of staff Inadequate work conditions including lack of space aggression and threat of aggression, inadequate car parking Management not facilitating staff Lack of communication Not having management support
Q4 Can you tell us how you determine that you are satisfied?	Feeling good – having good health Feeling patients are satisfied Seeing good outcomes of nursing care Having pay and conditions which are acceptable Comparisons with competitors and colleagues in other hospitals Feedback from colleagues and management Reward and recognition
Q5 We would now like to ask you to share your views about another issue, that is, your organisation? How do you feel about the organisation in which you work?	Organisation too big – both positive and negative outcomes Bureaucracy – negative outcomes Organisations can be impersonal when they are too large At unit level there is support and recognition Some areas within the organisation are competitive – this can be both positive and negative. For example, a competitive environment can lead to stress which will have a negative impact on the person Overall warm and supportive Organisations should conduct exit interviews Useful to have staff appraisals in organisations Rapid change is occurring in organisations – feedback and communication important Organisations should be progressive
Q6 We would now like you to rank the organisational factors you have identified in order of importance (1 = most important ? = least important)?	1 a Organisations should be progressive 1. b Rapid change is occurring in organisations – feedback and communication important 2. Overall warm and supportive 3. Useful to have staff appraisals in organisations 4. Organisations should conduct exit interviews 5. At unit level there is support and recognition 6. Organisation too big – both positive and negative outcomes Bureaucracy – negative outcomes Organisations can be impersonal when they are too large 7. Some areas within the organisation are competitive – this can be both positive and negative. For example, a competitive environment can lead to stress which will have a negative impact on the person.

Table: 10

Additional Comments from Participants

In concluding the interview the facilitator summarised the main points discussed for each question and invited participants to comment on the accuracy of the summary. All participants agreed that the points recorded were a true reflection of their views and did not request that changes be made. In addition, participants were asked whether they had any additional comments they wished to make about their work and work environments. These comments are described below.

One of the first comments to emerge from this part of the focus group was that having students in the clinical environments (students working in hospital wards or departments) is a source of satisfaction and that receiving feedback from students following clinical placement can be beneficial to staff. Others in the group concurred with this. A rather surprising comment was the importance of research as a source of satisfaction. All participants felt that participation in research at unit or ward level contributed to their job satisfaction. Participants also reported that providing opportunities for updating knowledge and skills at unit level (ongoing or continuing education opportunities) was important to job satisfaction and suggested that sharing knowledge (gained from attending courses) with colleagues would also improve job satisfaction. Participants reported also that their job satisfaction levels increased when they engaged in teaching student nurses, colleagues, and patients. The final point raised by participants was clinical audit.[168] Participants felt that participating in clinical audit and receiving feedback from reviewers on completion of the audit was beneficial not only to their practice but also to their level of job satisfaction. Some

[168] Clinical audit can be described as a systematic and critical analysis of care, aimed at improving patient outcomes.

participants stressed, however, that if clinical audit was conducted incorrectly this could lead to frustration and job dissatisfaction.

Biographical Data

All six participants completed a biographical questionnaire. This questionnaire consisted of eight questions and included (1) gender, (2) age group, (3) nursing or midwifery education, (4) country in which nursing or midwifery education was undertaken, (5) registration details, (6) place of employment, (7) current position and (8) length of time in current place of employment. The biographical details from the six participants are summarised in Table 11.

Biographical Data from the Focus Group Interview

Questions from Biographical Questionnaire	Outcomes
Q1 Gender	All participants were female.
Q2 Age Group	Half of the participants (3) belonged to the age group 36-45 years. The remaining three belonged to either the 26-35 or 46-55 age groups.
Q 3 Nursing or midwifery education	Five of the participants had undertaken their nurse training prior to the introduction of the Diploma in Nursing. Two of these had subsequently undertaken their Diploma in Nursing. Only one of the five participants had undertaken both nursing and midwifery training and had completed primary and masters degrees. One participant had undertaken a diploma in nursing.
Q 4 Country in which nursing or midwifery education undertaken	Half of the participants (3) undertook their training in U.K. while the remaining three undertook their nurse training in Ireland.
Q 5 Registration details	Two thirds of the participants (4) were registered in the general division of the register held by *An Bord Altranais*. The remaining one third were registered in the psychiatric division of the register.
Q 6 Current place of employment	Half of the participants were working in Acute General Services. Of the remaining half, one was working in Acute Psychiatric Services, another in Acute Paediatric Services and the third in day care facilities for the elderly.
Q 7 Current position at work	One third (2) of the participants were currently employed as Staff Nurses while another one third (2) were employed as Advanced Nurse Practitioners. Of the remaining two participants one was employed, as a Clinical Placement Co-ordinator while the other was a Ward Sister.
Q 8 Length of time in current place of employment	One third of the participants had been working in their current place of employment between 3-5 years. Another two were in their current place of employment for over seven years. Of the remaining one third of the sample, one had been working in her current place of employment between 1-3 years while the other had been working in her current place of employment for just under eleven months.

Table: 11

4.14.4 Report from the Independent Observer

An independent observer was recruited for this focus group interview. The role of the independent observer was to ensure that the interview was conducted according to the procedures prepared by this researcher and that ethical guidelines were adhered to. In addition, the observer was asked to record her own observations of the proceedings,

and monitor the timing of each phase of the interview. The observations recorded are summarised below.

The independent observer reported that at the beginning of the interview some of the participants did not appear to be fully relaxed and suggested that some non-threatening general or "ice-breaker" questions would have created a more relaxed environment. It is important to stress that such questions were included in the interview schedule. No one person dominated the proceedings and all participants contributed to the discussion. In addition, participants listened attentively to each other. On the whole, the group spoke either to the researcher or the facilitator rather than to other group members. Although participants disagreed on some issues, for example, when ranking factors in question two, there was no conflict within the group. There was very little non-verbal communication within the group, with only occasional hand gestures from about half of the participants.

One participant invariably answered the questions first but not in a dominating manner. This may have been influenced by the seating arrangement. All present sat in a semi-circle and the participant who answered the questions first sat at one end of the semi-circle. Participants were asked to wear name badges (pseudonyms) and this worked quite well. Throughout the interview participants identified themselves by using the pseudonym prior to responding to a question or a comment from other participants. At the end of the interview the independent observer was asked to complete a short evaluation of the focus group interview. A copy of the checklist used by the independent observer can be found in Appendix 1 C.

4.14.5 Limitations of Focus Group Interviews

It should be noted that a focus group interview is a qualitative data collection method and when used in an exploratory capacity is not intended to provide data that are projectable to a larger population. Focus groups are designed to elicit participants' views, opinions and perceptions about a particular topic and are useful for generating ideas that will help researchers to understand a specific subject. It is important to state that the goal in using a preliminary focus group is to use the findings to guide one's work, not determine it.

In the present study, this focus group was used developmentally, whereby the findings were used to inform the larger dominant phase of the study. Specifically, the findings were used to assist in the selection of a suitable job satisfaction theory and in the formulation of hypotheses. At no time were the findings from this focus group considered to be a representative point of view of a specific target population. The small size of the sample and the non-probability method used to recruit participants do no permit such generalisations.

4.14.6 Evaluation of the Focus Group Interview

One of the purposes of this focus group was to explore nurses' views, experiences and perceptions about their work, the organisations where they worked and the factors that contributed to their job satisfaction. From the findings given in this report it would be fair to say that this purpose was achieved. Nevertheless, this researcher is of the opinion that the poor interaction within this focus group did not provide any significant insights into participants' views and experiences. Several factors could have contributed to this and in order to understand why there was such poor group interaction it is important that some of these factors be explored.

One of the factors that can affect what is learnt from a focus group is the set of questions that guide the discussion. Some focus groups use what is commonly known as the "funnel design".[169] In this design the facilitator begins with questions about general issues and progressively narrows the focus of the discussion on the topics or issues that are of interest to the researcher. Other researchers begin their discussion using an "inverted funnel"[170] approach which begins with the more specific questions and progress to more general questions. According to Morgan[171] it is difficult to determine if these two approaches would lead to different discussions of the same topic unless researchers use both approaches and then compare the results.

Another factor that can affect the nature of the data in focus groups is the facilitator. Having compared tapes, transcripts, and reports from different facilitators who had worked on several marketing projects, McDonald[172] concluded that different styles of facilitating a focus group interview did produce different results. Another factor that could affect the nature of the data collected from a focus group is the size of the group. Despite using the recommended size range of 6-10 participants there is a feeling that a group of 6 would be too small for some topics and a group of 10 would be too large for others. There is, however, no known research on how differences in topics compare with differences in preferred group size. In summing up then, it would be fair to say that any of these factors may have contributed to the poor interaction among participants in this focus group, which resulted in no significant

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[169] D.L. Morgan, Focus Groups as Qualitative Research, p. 65.

[170] Ibid., p. 66.

[171] Ibid.

[172] W.J. McDonald, "Focus Group Research Dynamics and Reporting: An Examination of Research Objectives and Moderator Influences," Journal of the Academy of Marketing Science 21 (1993): p. 161-168.

insights into participants' views and experiences on the topic. Despite this, however, the findings from the focus group were useful in that they assisted this researcher in selecting a theory of job satisfaction that could be incorporated into the framework used to guide the present research study. Therefore, the second purpose of the focus group interview was achieved.

4.14.7 Summary of Main Findings from the Focus Group Interview

In examining the findings from the focus group it would appear that factors such as "working in a self selected speciality" (a speciality selected by a nurse), "knowing patients are satisfied", "teamwork", "support from management", "autonomy", "ownership", and "being listened to and responded to" were responsible for job satisfaction. Factors such as "lack of control over staff shortages", "lack of continuity in services" (delays in treatment), "increased workload", "having to cope with multiple roles", "inadequate work conditions", "lack of communication" and "not having management support" can lead to job dissatisfaction. These findings would appear to be similar to those identified by other researchers notably Herzberg *et al.*,[173] Seymour & Buscherhof,[174] Wagner *et al.*[175] Blegen[176] and McNeese-Smith.[177] Worthy of note is the fact that half of the participants in the focus group rated their current level of job satisfaction using a visual scale of 1 to 10. One third indicated

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[173] F. Herzberg, B. Mausner, and B. Snyderman, The Motivation to Work, p 81.

[174] E. Seymour, and J.R. Buscherhof, "Sources and Consequences of Satisfaction and Dissatisfaction in Nursing: Findings from a National Sample," p. 109-124.

[175] J.T. Wagner, L.C. Loesch, and T.W. Anderson, "A Study of Components of Nursing-Job Satisfaction," Journal of Employment Counselling September (1977): p. 120-130.

[176] M.A. Blegen, "Nurses' Job Satisfaction: A Meta-Analysis of Related Variables," p. 36-41.

[177] D.K. McNeese-Smith, "A Content Analysis of Staff Nurse Descriptions of Job Satisfaction and Dissatisfaction," p. 1332-1341.

that they would rate their current level of job satisfaction at 6. Another said that she would rate her overall job satisfaction level between 4 or 5 out of 10 but that her satisfaction gained from patient centred activities would be higher. The prevalent view was that patient satisfaction led to an increase in nurses' job satisfaction.

With regard to participants' views about the organisation where they worked, the following issues emerged. Participants reported that "large organisations could have both advantages and disadvantages". Large organisations tend to be "bureaucratic, impersonal and can be inefficient". Despite this, all participants reported that they received "some support and warmth from colleagues at unit or ward level in their individual organisations" (hospitals). These participants, however, perceived management personnel to be "less friendly than other employees in their organisations". One participant expressed the view that "younger managers who were married and had families were more understanding and better at communicating with their staff than their unmarried counterparts". Participants expressed the view that "feedback and effective communication were important issues in their organisations because of the rapid rate at which change was occurring". While they viewed change in a positive light they emphasised that "rapid change could lead to increased stress and job dissatisfaction". The majority of participants expressed the view that "every staff member should have an individual performance review undertaken annually" as this can contribute to their "overall professional development and ultimately job satisfaction".

The purpose of this focus group was twofold. Firstly, it set out to explore participants' views, experiences and perceptions about (a) their work, (b) the organisation where they work and (c) those organisational factors that contributed to

job satisfaction. Secondly, to use the data from the focus group interview developmentally, whereby the information from the group discussions would be used to assist this researcher in selecting a theory of job satisfaction that could be used as part of a framework for interpreting the results from the present survey. From this summary of the findings, it would appear that the first objective was achieved albeit in a very superficial way.

The idea to use the focus group interview developmentally was suggested by supervisors during early discussions regarding the design and planning of the present research study. The findings from the focus group interview would seem to suggest that a set of factors relating to the work nurses do lead to job satisfaction, while another set of factors mainly those relating to work conditions are responsible for dissatisfaction. Such findings would appear to have some similarities with Herzberg's Two-Factor theory. Therefore, the second purpose of the focus group was also achieved.

4.15 Summary and Conclusion

Research is a complex process, diverse in purpose and methods and based on a varied theoretical structure. For this reason, it is important to inform the reader of the methods and procedures used in designing and organising a research study. This chapter provided an account of how the present research study was planned and implemented. The chapter began with an overview of the literature on research paradigms and drew attention to two major issues. Firstly, that research has moved away from the use of single-method designs toward the use of mixed method and mixed model studies. Secondly, that many social and behavioural scientists share a common set of beliefs that are distinct from positivism or constructivism. This set of

beliefs or new paradigm has been labelled pragmatism which supports the use of mixed method and mixed model studies.

The chapter then went on to discuss methodological issues relevant to the present research study. A dominant-less dominant mixed method design was used in this research study. This design allowed the study to be presented within a single dominant paradigm (quantitative) with one small component of the overall study drawn from the alternative paradigm (qualitative). In the present study this design was used developmentally, wherein the first method (focus group interview) was used to inform the second larger quantitative phase of the study. A rationale for selecting this design was given before moving on to discuss the sampling techniques used for both the focus group interview and questionnaire survey. The size of the sample for the focus group was six (6) nurses and the sample used for the survey was 2000 randomly selected nurses. Data for the qualitative phase of the study were collected through a focus group interview while a postal survey was used to collect data about the two independent variables and the dependent variable under investigation.

The measurement instruments used in the survey were then discussed. A questionnaire booklet containing three instruments was used for the survey. Each of the three instruments was described in detail and where appropriate reliability analysis presented. Next, information about how the data were prepared for analysis was given. Before discussing how the data from both the focus group interview and survey would be analysed, the purpose and outcomes of the pilot study were outlined.

This chapter then addressed the importance of ethical considerations in social research. An ethical framework was developed by this researcher to guide the present study. This framework contained two parts. Part A, addressed the ethical principles

used to guide all research and explained how these principles were upheld during the conduct of the present study. Part B, outlined the ethical standards used in the professional practice of research and described their application to the present study. In other words, the framework specified how this researcher was going to uphold the rights of all respondents.

Although there are many reasons for using mixed methods in a single study, in the present study it was used developmentally, wherein the findings from the first method were used to help inform the second method. Therefore, the findings from the focus group interview, which was the first method used to collect data were presented in this chapter rather than in Chapter Five. Thus, the concluding sections of the present chapter were devoted to reporting the major issues regarding the focus group interview.