The views and experiences of bisexual people regarding their psychosocial support needs: a qualitative evidence synthesis

Short title: Bisexuals' psychosocial support needs

Edward McCann¹, Michael J. Brown², Julia Taylor³

1. School of Nursing and Midwifery, University of Dublin, Trinity College, Dublin, Ireland
2. School of Nursing and Midwifery, Queen's University Belfast, UK
3. School of Nursing, University of Tasmania, Australia

Word count: 4712

Acknowledgments

None

Funding Statement

This research received no funding

Ethical statement

No ethical approval required

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/JPM.12680](#)

This article is protected by copyright. All rights reserved

Correspondence:

Dr Edward McCann

Trinity College Dublin

School of Nursing and Midwifery

24 D'Olier Street

Dublin 2

Ireland

e-mail: mccanned@tcd.ie

DR EDWARD MCCANN (Orcid ID : 0000-0003-3548-4204)

Article type : Review Article

The views and experiences of bisexual people regarding their psychosocial support needs: a qualitative evidence synthesis

Accessible Summary

What is known on the subject?

- Bisexual people experience significantly poorer mental health and higher rates of self-harm and suicidality than their gay, lesbian or heterosexual counterparts.
- Although little is understood about why these disparities exist, bisexual people have been found to have unique life experiences that separate them from other sexual minority groups.
- Despite these health disparities and unique experiences, in research and in clinical settings, bisexual people are often incorporated under the LGBTQI+ umbrella and their needs are not seen as being different to those of other sub-groups.

What the paper adds to existing knowledge?

- This paper brings together the findings of the small but growing body of literature reporting on the psychosocial support needs of bisexual people.
- The findings reported on herein provide novel insights, collated and synthesised, that will prove valuable to policy makers, service providers and researchers.

What are the implications for practice?

- This paper clearly illustrates that bisexual people experience significant barriers to accessing the support services they need and that current competent service provision for this population is severely limited.
- The findings presented in this article shed light on the unique psychosocial needs of bisexual people and highlight the need for practice change to reduce barriers to service access and ensure inclusive and culturally competent care for this community.

ABSTRACT

Introduction: Despite consistent evidence of poor mental health among what is a relatively large population group, research examining bisexual mental health remains sparse.

Aim: To identify the psychosocial needs of people who are bisexual and establish factors that may support or inhibit access to appropriate psychosocial interventions and supports.

Method: A qualitative evidence syntheses of the empirical evidence.

Results: A total of 15 papers were included in the review. The PRISMA process was used. Following data analysis, four main themes emerged that were (i) experiences of being bisexual, (ii) mental health experiences and concerns, (iii) service access and responses, and (iv) communities and supports.

Discussion: Bisexual people have unique and specific psychosocial support needs that relate to, but are also different from, the needs of the broader LGBTIQ+ community. This study provides valuable insights into how future policy, practice, education and training and research can better address the needs of this highly vulnerable group.

Implications for Practice: This study highlights the psychosocial complexities associated with bisexuality and provides evidence for the need for improvement in current support services to ensure inclusivity and culturally competent care.

Relevance statement: To the authors' knowledge, this is the first review identifying the views and experiences of bisexuals regarding their psychosocial needs and concerns. The findings from the review can inform nurses and other practitioners of the appropriate psychosocial interventions and supports required by this population to improve their health and well-being. The evidence can enhance person-centred care and service responses.

KEYWORDS:

Bisexual; mental health; psychosocial; supports; experiences; qualitative evidence syntheses

1 INTRODUCTION

Bisexual people make up the largest group under the LGBTIQ+ umbrella and account for approximately 10% of the broader population (Richters et al., 2014). Despite wide variation in research methods, sampling techniques and geographic location, research consistently reports that bisexual people experience poorer mental health than their gay, lesbian or heterosexual counterparts (Bostwick, Boyd, Hughes, & McCabe, 2010; Conron, Mimiaga, & Landers, 2010; Hughes, Szalacha, & McNair, 2010; Leonard, Lyons, & Bariola, 2015; Li, Dobinson, Scheim, & Ross, 2013; Persson, Pfaus, & Ryder, 2015; Pompili et al., 2014; Steele, Ross, Dobinson, Veldhuizen, & Tinmouth, 2009). Despite this consistent evidence of

very poor mental health among what is a relatively large population group, research examining bisexual mental health remains sparse.

One barrier to scholarly progress in this field is the lack of a clear definition of bisexuality. For the better part of a century, scholars have sought to define this diverse and complex orientation. In 1948, Alfred Kinsey and his colleagues (Kinsey, Pomeroy & Martin, 1948) offered a new approach to understanding what had previously been seen to be a challenging and problematic concept (Ellis, 1915; Freud, 1920). Kinsey and colleagues (Kinsey et al., 1948) suggested that sexuality exists on a seven-point continuum with exclusively heterosexual at one end, exclusively homosexual at the other and bisexuality occupying the vast space in-between. This concept of bisexuality as a complex orientation that encompasses varying and diverse expressions of non-monosexuality continues to underpin much of the work in this field today (Taylor, 2018a). Contemporarily, scholars have attempted to expand on Kinsey and colleagues' (1948) work by providing inclusive and nuanced definitions (Eisner, 2013; Yoshino, 2000). Perhaps the most widely accepted (Israel, 2018) definition to date is that of celebrated bisexual writer and advocate Robyn Ochs (2005), who defines bisexuality as 'the potential to be attracted – romantically and/or sexually – to people of more than one sex and/or gender, not necessarily at the same time, not necessarily in the same way, and not necessarily to the same degree' (p. 8).

Though definitions vary within the literature, there is one clear consensus with regard to bisexual people: they are highly vulnerable to poor mental health. Bisexual people have been found to experience significantly higher rates of mental illness (Hughes et al., 2010; Loi, Lea & Howard, 2017; Persson et al., 2015; Steele et al., 2009), psychological distress (Leonard et al., 2015; Loi et al., 2017), self-harm (Hughes et al., 2010) and suicidality (Brennan, Ross, Dobinson Veldhuizen & Steele, 2010; Conron et al., 2010; Pompili et al., 2014; Salway et al., 2019; Steele et al., 2009) than those of other sexual orientation groups. As a result of this significant evidence, there are urgent calls from both clinicians and researchers to generate a deeper understanding of the phenomenon and the interventions and supports required to improve outcomes for bisexual people (Taylor, 2018b).

Given the high rates of poor mental health within the bisexual population, it is an important part of the solution to understand and improve mental health service accessibility for this group. Currently, there is a paucity of research examining bisexual peoples' experiences of mental health services (Taylor, 2018b). The research that has been conducted suggests that bisexual people are highly engaged with these services and are more likely to have accessed professional mental health care than gay or lesbian people (Leonard et al.,

2015; Loi et al., 2017). Despite this, bisexual people report a number of barriers to accessing this care including fearing negative attitudes from service providers as a result of their sexuality (Li et al., 2013; Page, 2004), the perception that service providers lack knowledge of bisexuality (Dobinson, Macdonnell, Hampson, Clipsham & Chow, 2005) and there being a general lack of inclusive care available for bisexual people (Dobinson et al., 2005). In addition, bisexuals report a wide variation of responses to disclosure of their sexuality to service providers ranging from inclusive support to discriminatory and biphobic reactions (Dobinson et al., 2005; Eady, Dobinson & Ross, 2011).

Scholarship in the field of bisexual mental health tends to be dispersed and fragmented and drawing this together in a meaningful way would provide the necessary foundation for progressing towards solutions for this group. This paper presents a review of the literature in this field and aims to present an overview of the current evidence relating to the experiences of bisexual people with regard to mental health and provide an examination of what service responses are required to meet the needs of this highly vulnerable group. This review will provide much needed direction for both future service-provision and research.

2 METHODS

2.1 Aim

The aim of this review was to synthesize the best available evidence on the views and experiences of bisexual people regarding their psychosocial needs, and to establish factors that may support or inhibit access to appropriate psychosocial interventions and supports.

2.2 Design

A qualitative evidence synthesis approach was deemed the most appropriate method to address the aim of the review and synthesise the findings from a diverse range of methods, sampling and research designs used (Noyes, Booth, Moore, Flemming, Tunçalp and Shakibazadeh, 2019).

2.3 Search strategy

The search process was guided by a subject librarian. Published research papers were identified utilising a defined search strategy. Firstly, the PsycINFO was searched, then the text words in the abstract and title were scrutinised, and the index terms used in the papers were identified. An example of the strategy used in the search is presented in Table 1.

**** Table 1 here *****

Next, a systematic search using all of the identified keywords and index terms was applied across all of the selected databases including CINAHL, PsycINFO, MEDLINE, and Sociological Abstracts. International studies published in academic journals in the English language, from inception to March 2020, were included in the review. Finally, the reference lists of all identified papers were searched for studies related to the aims of the review.

2.4 Search outcomes

All of the included studies had to relate specifically to the mental health and support needs of bisexuals. Of the studies that were excluded, the reasons were: wrong target population, not focusing on mental health needs of bisexuals, not addressing support needs of bisexuals, and not written in English. Any papers that were duplicates were removed. The remaining papers were reviewed against the inclusion criteria by title and abstract by two of the research team. A total of 15 papers met the inclusion criteria of the review and were subject to full quality appraisal. The PRISMA framework was used to present the findings of the search (Moher et al. 2015) and are contained in Figure 1.

*****Figure 1 here*****

2.5 Quality appraisal

Two reviewers were involved in the appraisal process. A recognised mixed methods appraisal tool (MMAT) was used to assess the quality of the empirical research studies (Hong, Pluye, Fàbregues, Bartlett, Boardman, Cargo, Dagenais, Gagnon et al. 018). Appraisal questions were applied to the included studies that could score high, medium or low depending on the inclusion of certain criteria. All of the qualitative studies (Table 2a) achieved high-quality scores (Dodge, Schnarrs, Reece et al. 2012; Eady, Dobinson and Ross 2011; Flanders, Dobinson and Logie 2015; Flanders, Dobinson and Logie 2017; Li et al. 2013; Legge, Flanders and Robinson 2018; Ross et al. 2010). Two of the quantitative descriptive studies had medium quality scores (Flanders, Shuler, Desnoyers and VanKim 2019; Loi, Lea and Howard 2017), with three rated high (MacLeod, Bauer, Robinson, MacKay and Ross 2015; Taylor, Power, Smith and Rathbone 2019; Taylor Power and Smith 2020) (Table 2b). Of the mixed methods studies (Table 2c), two were rated high (Ross, O'Gorman, MacLeod, Bauer, MacKay and Robinson 2016; Van, Mereish, Woulfe and Katz-Wise 2018) and one study was

rated low (Ross, Siegel, Dobinson, Epstein and Steele 2012). No studies were rejected following appraisal as all of the included studies addressed the review inclusion criteria.

***Tables 2 here ***

2.6 Data extraction

Two researchers extracted the data using an established framework (Lockwood, Porrit, Munn, Rittenmeyer, Salmond, Bjerrum, Loveday, Carrier and Stannard 2017). The papers (n=15) complete with their key characteristics are contained in Table 3.

***Table 3 here ***

A majority of the studies were from Canada (n=7), then the United States of America (USA) (n=5) and Australia (n=3). Over half of the included studies utilised qualitative designs (n=7) (Dodge et al. 2012; Eady et al. 2011; Flanders et al. 2015; Flanders et al. 2017; Li et al. 2013; Legge et al. 2018; Ross et al. 2010). Quantitative designs were used in five studies (Flanders et al. 2019; Loi et al. 2017; MacLeod et al. 2015; Taylor et al. 2019; Taylor et al. 2020). The remaining studies (n=3) used a combination of methods (Ross et al. 2012; Ross et al. 2016; Van et al. 2018). Sample sizes ranged from 35 to 2651. The sampling and recruitment strategies appeared robust and creative and were reflective of the challenges of identifying and recruiting bisexuals to research studies. The data collection methods were appropriate and included face-to-face interviews, telephone interviews, focus groups, daily diaries, measures and surveys. Due regard was given to ethical considerations applied to all of the studies. The study findings were comprehensively presented including clear demographic information and evidence-based frameworks to facilitate data collection and analysis. The discussion and implications were clearly presented and articulated. The research contributes to developing the evidence base regarding the views and experiences of bisexual people.

2.7 Data synthesis

Following analysis of the data, themes were identified and sorted into concepts and contrasts made between and within the included studies. The themes were agreed and verified by the researchers (Clarke & Braun 2017).

3 RESULTS

The main themes were (i) experiences of being bisexual, (ii) mental health experiences and concerns, (iii) service access and responses, and (iv) communities and supports.

3.1 Experiences of being bisexual

While there is a growing focus on the psychosocial needs of bisexuals, they remain an under researched population with a limited attention on their specific experiences and support needs (Dodge et al. 2012; Eady et al. 2011; Loi et al. 2017). Bisexual people are not a homogeneous group and there are a range of sub-groups within the population, including different ethnicities, different genders and those with disabilities (Dodge et al. 2012; Flanders et al., 2019). Bisexual people are subject to diverse societal perceptions and stereotyping resulting in their further social exclusion. Factors include stigma, mono-sexism and biphobia within a heteronormative culture that continues to pervade (Flanders et al. 2015; Legge et al. 2018; Ross et al. 2012; Van et al., 2018).

It is evident from the data that, as a population, bisexuals are frequently perceived as promiscuous and ‘hypersexual’ by virtue of some engaging in relationships with multiple sexual partners (Li et al. 2013; Ross et al. 2010; Legge et al. 2018). Despite this non-monogamy commonly occurring in the contexts of open and honest communication between partners, this diversity in relationships has led to bisexual people feeling that people perceived them as untrustworthy and dishonest, facing fear of rejection by partners should they disclose their bisexuality (Li et al. 2013; Legge et al. 2018). Therefore, forming and maintaining romantic relationships was challenging for some bisexuals thus impacting negatively upon psychological well-being (Dodge et al. 2012; Flanders et al. 2015; Flanders et al. 2017; Li et al. 2013; Ross et al. 2010). Misperceptions, assumptions and limited understanding of bisexuality and the nature of their romantic relationships continues to exist within wider society and notably amongst gay communities (Dodge et al. 2012; Flanders et al. 2015; Li et al. 2013; Legge et al. 2018; MacLeod et al. 2015; Ross et al. 2010). For some bisexuals, non-monogamous relationships can result in increased psychological distress, placing burdens and tensions upon their intimate relationships (Dodge et al. 2012; Flanders et al. 2017). However, in contrast for some, acceptance and support from romantic partners can have a positive effect on the mental health and well-being of bisexuals (Flanders et al. 2019; Li et al. 2013).

3.2 Mental health experiences and concerns

Until recently, the health and social care needs of bisexuals were included under the LGBTIQ+ umbrella and they were generally perceived as a homogenous group. As a result, the distinct needs and requirements of bisexuals remained undetermined and unmet leaving a significant gap in the evidence-based literature (Ross et al. 2010; MacLeod et al. 2015; Loi et al. 2017; Taylor et al. 2019). This includes the unique experiences and concerns regarding mental health aspects including access, treatment options and service utilisation.

Across the current studies there was evidence of high levels of mental health issues and psychological distress that affected the health and well-being of bisexuals. In one study, 59% of respondents had experienced mental health difficulties (Eady et al. 2011) and in another study, 69% reported psychological distress (Taylor et al. 2019). Some of the most common mental health experiences that were identified included depression, anxiety and issues related to post-traumatic stress disorder (PTSD) (Flanders et al. 2017; MacLeod et al. 2015; Ross et al. 2016; Taylor et al. 2019). One study found significantly more reports of anxiety (30%) in bisexuals compared to 5% in the general population (MacLeod et al. 2015).

A particular area of concern was the higher risk of morbidity related to substance use among bisexual populations and associated mental health issues. In an Australian study comparing bisexuals with lesbian and gay men, bisexuals were more likely to have used amphetamines and opioids, diagnosed with a mental disorder and sought help and support from mental health services. The highest incidences of substance use and mental disorder was seen in bisexuals who identified as neither male nor female (Loi et al. 2017). Suicidality was found to be significantly more prevalent in one sample of bisexuals with suicidal thoughts being at almost 78% compared to 13% in the general population and suicide attempts at 28% compared with 3% of the general population (Taylor 2019). The effects of minority stress, biphobia, victimisation, stigma and discriminatory experiences have had a pronounced detrimental effect upon the mental health and psychological wellbeing of bisexuals (Dodge et al. 2012; Flander et al. 2015; Legge et al. 2018; Ross et al. 2010; Taylor et al. 2020).

3.2.1 Impact of stigma and discrimination upon mental health

Bisexuals can increasingly find themselves on the margins of society, face social exclusion and be subjected to stigma and discriminatory attitudes and behaviours due to their bisexual identity (Flanders et al. 2015; Legge et al. 2018). Individuals may experience biphobia, mono-sexism and heterosexism that may impact negatively on mental health (Ross et al. 2010). Some may encounter microaggressions, such as persistent prejudicial slights, derogatory remarks or insults, interpersonally or institutionally (Legge et al. 2018). Others may face victimisation experiences such as rape, violence and aggression (Van et al. 2018).

Some bisexual people have reported sexual harassment and threatening behaviour from heterosexuals, who may perceive them as hypersexual, viewing them with suspicion (Legge et al. 2018).

Bisexuals can also endure double discrimination by heterosexuals, lesbians and gay men that can affect their self-esteem and compound stressors that negatively impact mental health (Van et al. 2018). These factors can have a profound and detrimental effect upon a person's mental health and overall well-being. Consequently, the discrimination experienced by bisexuals can lead to a lack of access to the necessary healthcare and social supports and may result in poorer mental health outcomes (Eady et al. 2011; Loi et al. 2017; Ross et al. 2010; Taylor et al. 2020). Despite the obvious challenges that bisexual people sustain, some are able to develop coping strategies and cultivate resilience through their experiences and build self-esteem. Examples are accessing counselling and appropriate support networks (Flanders et al. 2015).

3.2.2 Identity acceptance and impact upon mental health

Although the development of positive coping strategies and resilience is achievable for some bisexual people, others may experience increased internalised biphobia, display avoidant characteristics and attempt to conceal their bisexual identity (Dodge et al. 2012; Flanders et al. 2015; Flanders et al. 2017). Some have pronounced feelings of discomfort and perhaps try to pass as heterosexual (Flanders et al. 2019), whilst others report feeling degraded or demeaned, or perceived as promiscuous and assumed to be in non-monogamous relationships (Li et al. 2013).

Due to these pressures, bisexual people can find it difficult to disclose their bisexuality to others, including healthcare providers, thus limiting their access and potential utilisation of available resources and supports (Loi et al. 2017). Increased rates of bi-negativity, identity invalidation, invisibility and erasure can lead to greater stress, anxiety, depression and other mental health concerns (Flanders et al. 2017). Negative experiences can ultimately lead to isolation and social exclusion, including diminished access to appropriate supports and services (Eady et al. 2011; Loi et al. 2017; Ross et al. 2012).

3.3 Service access and responses

Discriminatory experiences can have a serious and detrimental impact upon an individual's physical, psychological and social well-being (Flanders et al. 2017; Legge et al. 2018;

MacLeod et al. 2015). This can lead to exacerbations of mental health issues such as stress, anxiety, depression and PTSD (Ross et al. 2010; Ross et al. 2016; Taylor et al. 2020). Discrimination in healthcare can affect help-seeking behaviours and effective access to necessary supports and interventions. Some study participants commented on being stereotyped, judged and their experiences pathologised. This can cause individuals to withhold information and conceal their sexual identity in order to avoid discrimination (Dodge et al. 2012; Eady et al. 2011).

In some healthcare settings, heteronormative attitudes and beliefs continue to be held by practitioners and this can have a negative impact upon bisexual people whereby they may be reluctant to share and disclose this intimate personal information. This may be evident in assumptions and presumptions held by practitioners who can believe that people in their care are generally heterosexual (Flanders et al. 2015; Ross et al. 2016). In one study, family and friends were seen as the most important source of support for bisexual people concerned about their mental health. Some 50% of respondents in the same study felt that health professionals lacked the necessary knowledge, attitudes and values regarding bisexual specific issues and 56% would like access to specialist bisexual supports and services (Taylor et al. 2020).

3.4 Communities and supports

It is evident across studies that some bisexuals feel judged and misunderstood leading to social isolation and fear of discrimination. There is a lack of a clearly visible bisexual community and networks akin to those found in the gay and lesbian community, leading to further social isolation (Dodge et al., 2012; Flanders et al., 2015; Flanders et al., 2019; Legge et al., 2018; MacLeod et al., 2015; Ross et al., 2012; Van et al., 2018). Some feel actively excluded from the gay and lesbian community due to their bisexuality, further diminishing a sense of a bisexual identity (Dodge et al., 2012; Flanders et al., 2017; Li et al., 2013). The situation regarding access to supports and networks is further compounded by a lack of bisexual-specific community spaces that are sensitive and responsive to the needs of bisexuals (Flanders et al., 2012; Ross et al., 2015; Van et al., 2018). This situation contributes to anxiety and depression due to limited access to psychosocial supports tailored and specific to the needs of bisexuals (Flanders et al., 2015; Ross et al., 2012).

4 DISCUSSION

There is a well-established body of international research evidence regarding the scope and extent of the health needs, including psychosocial concerns, experienced by LGBTIQ+ people *per se*. This evidence clearly sets out the challenges and negative attitudes faced by some LGBTIQ+ people in their everyday lives and when accessing and using health services (Dearing and Hequembourg 2014; McCann, Keogh, Doyle, and Coyne, (2019); Su, Irwin, Fisher, Ramos, Kelley, Mendoza, and Coleman, 2016; Stewart and O'Reilly 2017). To assist with understanding, the term LGBTIQ+ is used internationally as the wider rainbow umbrella conceptualization of these diverse populations. Bisexuals are frequently included as a subpopulation within LGBTIQ+ research studies and while such an approach is appropriate, it is necessary to focus on their specific needs and concerns and the responses necessary to address them. Therefore, arising from this review are important developments for policy, practice, education and future research.

4.1 Policy

From a policy perspective, there is a need to include and reflect the specific needs of bisexuals. To ensure this is a reality, policies specific to LGBTIQ+ people should separate and reflect the distinct needs and specific health conditions, including the psychosocial ones, experienced by bisexuals (Albuquerque et al., 2016; Kaestle & Ivory, 2012; See & Hunt, 2011; World Health Organisation, 2013). With increasing attention being given to improving the mental health of the wider population, there is an opportunity for developments to be linked to service design and delivery, thereby ensuring that needs of bisexuals are appropriately addressed (Russell & Fish, 2016). An issue emerging from this review is the need for bisexually-sensitive and aware mental health services (Taylor et al., 2020). Given the evidence of the extent and scope of the psychosocial needs of bisexuals, mental health policies need to be reflective of these concerns and develop service responses necessary to address them (Dobinson et al., 2005; Israel, 2018). Sexual health policies need to reflect mental health needs with opportunities for collaborations and joint working with mental health services to address more complex psychosocial concerns (Black et al., 2020). Some bisexual people opt to access primary care to address their psychosocial concerns. Therefore, primary care policies need to take account of the needs of bisexuals and have in place appropriate responses and supports (Floyd et al., 2016; Foy et al., 2019; Ng, 2016).

4.2 Practice

The findings from this review highlight many of the barriers that bisexuals encounter as they attempt to access and utilise mental health services and supports (Loi et al., 2017; Taylor et

al., 2019). The psychosocial needs of bisexuals remain largely unexplored leaving significant gaps in service provision for this population (Bostwick 2014; Flanders et al., 2016). There exists evidence that mental health services continue to be unresponsive to the specific needs of non-heterosexuals, including bisexuals (McCann & Sharek 2014; Ojeda-Leitner & Lewis 2019; Ross et al., 2016). This is despite the evidence of greater mental health morbidity and significant issues related to discrimination, victimisation and social exclusion (Dodge et al., 2012; Legge et al., 2018; Van et al., 2018). Many bisexuals remain reticent about disclosing their sexual identity to mental health practitioners due to concerns regarding further discriminatory behaviours and negative attitudes, with their specific requirements being poorly understood. These behaviours contribute to marginalisation and social exclusion, further compounding their poor mental health (Eady et al., 2011; Kidd et al., 2016; Ross et al., 2010). Arising from this is the need for mental health practitioners to examine their own attitudes, values and beliefs, within the wider context of culturally competent health care (Handtke et al., 2019; Patterson et al., 2019; Saliba et al., 2019). From a mental health practice perspective, it is important that practitioners do not dismiss or ignore the disclosure of a bisexual identity. This personal disclosure needs to be integrated and considered along with all other health information as part of the biopsychosocial assessment and treatment plan (Pachankis et al., 2019). Contemporary mental health service needs to go beyond traditional psychopharmacological interventions by providing access to a range of treatment options, including psychotherapies and wider networks of support (Alessi et al., 2019; Flanders et al., 2019; McCann & Brown, 2020). Bisexual-specific networks and supports are also required that are reflective of the needs of this often-excluded population (Fredriksen-Goldsen et al., 2017; Friedman et al., 2019; Pachankis et al., 2020).

4.3 Education and training

Given current evidence of the extent of the psychosocial issues and concerns that exist, there is a requirement and professional responsibility to ensure that the needs of bisexuals are integrated within education and practice development programmes (Flanders et al., 2015; Ross et al., 2012). Pre-registration programmes for nurses, midwives, doctors, social workers and other allied health professions need to include a focus on the research evidence and needs of LGBTIQ+ people and specifically those of bisexuals (Bragg et al., 2020; Cooper et al., 2018; Legge et al., 2018; Orgel, 2017). Programmes need to pay particular attention to the psychosocial concerns of bisexuals and the need for culturally competent services, with care and support provided by confident and competent practitioners (Flanders et al., 2015). There is an opportunity for Continuing Professional Development (CPD) programmes to shine a

light on the needs of bisexuals in areas such as psychosocial and mental health, anti-discriminatory practice, culture awareness and equality and diversity (Eady et al., 2011; Flanders et al., 2019; Hunt et al., 2019). From a postgraduate perspective, there is a need to develop practitioners with the knowledge, attitudes, values and skills necessary to provide culturally competent and person-centred assessment, interventions, treatments and supports (Eckstrand et al., 2017; Loi et al., 2017). As a consequence of the breadth of the psychosocial needs of bisexuals, it is also necessary for services to ensure that there is access to practitioners equipped with the knowledge and skills of the needs of bisexuals. Following on from this is the need to provide a range of evidence-based psychosocial interventions in a way that is responsive to the needs of this population (Ross et al., 2010; Van Der Pol-Harney & McAloon, 2019).

4.4 Research

There is a growing and evolving body of research evidence regarding the views and experiences of bisexuals regarding their psychosocial needs and service responses. Bisexuals often remain hidden and their needs elusive and poorly understood. Their specific needs and the responses required from services to address them presents an important area for future research. A significant limitation is an absence of an internationally recognised and agreed definition of bisexuality (Taylor, 2019). A further limitation within the wider LGBTIQ+ research is the inclusion of bisexuals as a subpopulation of the larger study sample. This approach while allowing for cross-population comparisons, limits the understanding of their specific psychosocial concerns. LGBTIQ+ researchers could therefore need to design their sampling and dataset to enable the bisexual-specific data to be extracted and analysed separately. The situation is further compounded due to the often-hidden nature of bisexuality, with the existing research studies being single-centred, adopting cross-section population designs and purposeful samples. No multi-centre, bisexual-specific research studies were identified for inclusion in this review. There is scope for multi-centre research collaborations with larger samples to be utilised, to enable comparison of experiences and identify effective service responses from the perspective of bisexuals. No multi-centre, international research studies were identified in the current review. International research collaborations are therefore required to develop and grow the evidence regarding the experiences of bisexuals across countries and continents and what works from their perspective.

5 CONCLUSION

This review fills a significant gap in the existing body of evidence regarding the often-significant psychosocial needs and concerns of bisexuals and the responses required by health services. The authors have been rigorous in the application of the review process and acknowledge the potential for subjectivity. The most noticeable being that the studies that do exist are restricted to the USA, Canada and Australia. There are no European, South American, Asian or African studies. No longitudinal follow-up studies were identified and therefore it is not possible to determine the extent to which the views and experiences of bisexuals changed overtime or the impact on improving their health and well-being. It is also necessary to recognise the transcultural differences that exist globally, thus creating an opportunity for future international research collaborations. This review draws together the international research evidence that highlights the scope and extent of the psychosocial needs and concerns experienced by bisexual people. As a population, bisexual people experience significant levels of mental illness and major barriers when accessing healthcare appropriate to their distinct needs. Arising from the evidence contained in this review, there are important implications for mental health practice that need to be addressed to improve the health and well-being of bisexual people.

6 IMPLICATIONS FOR PRACTICE

This review highlights the unique views and experiences of bisexuals and develops the understanding of the responses required by nurses and other practitioners to address their needs and provide responsive health services. Given the growing research evidence regarding the scope and extent of psychosocial needs and experiences, improvements in service supports and interventions are required. There is an opportunity for nurses to respond more effectively to the specific psychosocial needs and concerns of bisexuals, thereby improving their overall health and well-being.

Conflicts of interest

There were no conflicts of interest

ORCID Number: 0000-0003-3548-4204

REFERENCES

- Albuquerque, G.A., de Lima Garcia, C., da Silva Quirino, G., Alves, M.J.H., Belém, J.M., dos Santos Figueiredo, F.W., da Silva Paiva, L., do Nascimento, V.B., da Silva Maciel, É., Valenti, V.E. & de Abreu, L.C. (2016). Access to health services by lesbian, gay, bisexual, and transgender persons: Systematic literature review. *BMC International Health and Human Rights*, 16(1), 2.
- Alessi, E. J., Dillon, F. R., & Van Der Horn, R. (2019). The therapeutic relationship mediates the association between affirmative practice and psychological well-being among lesbian, gay, bisexual, and queer clients. *Psychotherapy*, 56(2), 229.
- Black, S., Salway, T., Dove, N., Shoveller, J. & Gilbert, M. (2020). From silos to buckets: A qualitative study of how sexual health clinics address their clients' mental health needs. *Canadian Journal of Public Health*, 1-9.
- Bostwick, W. B., Boyd, C. J., Hughes, T. L. & McCabe, S. E. (2010). Dimensions of sexual orientation and the prevalence of mood and anxiety disorders in the United States. *American Journal of Public Health*, 100(3), 468-475.
- Bragg, J. E., Nay, E. D., Miller-Cribbs, J. & Munoz, R. T. (2020). Implementing a graduate social work course concerning practice with sexual and gender minority populations. *Journal of Gay & Lesbian Social Services*, 32(1), 115-131.
- Clarke, V. & Braun, V. (2017) Thematic analysis. *The Journal of Positive Psychology* 12(3), 297–298.
- Cooper, M. B., Chacko, M., & Christner, J. (2018). Incorporating LGBT health in an undergraduate medical education curriculum through the construct of social determinants of health. *MedEdPORTAL: The Journal of Teaching and Learning Resources*, 14.
- Brennan, D. J., Ross, L. E., Dobinson, C., Veldhuizen, S. & Steele, L. S. (2010). Men's sexual orientation and health in Canada. *Canadian Journal of Public Health / Revue Canadienne de Sante'e Publique*, 101(3), 255-258.

Conron, K. J., Mimiaga, M. J. & Landers, S. J. (2010). A population-based study of sexual orientation identity and gender differences in adult health. *The American Journal of Public Health*, 100(10), 1953-1960.

Dearing, R. L., & Hequembourg, A. L. (2014). Culturally (in) competent? Dismantling health care barriers for sexual minority women. *Social Work in Health Care*, 53(8), 739-761.

Dobinson, C., Macdonnell, J., Hampson, E., Clipsham, J. & Chow, K. (2005). Improving the access and quality of public health services for bisexuals. *Journal of Bisexuality*, 5(1), 39-77.

Dodge, B., Schnarrs, P.W., Reece, M., Martinez, O., Goncalves, G., Malebranche, D., Pol, B.V.D., Nix, R. and Fortenberry, J.D. (2012). Individual and social factors related to mental health concerns among bisexual men in the Midwestern United States. *Journal of Bisexuality*, 12(2), 223-245.

Eady, A., Dobinson, C. & Ross, L. E. (2011). Bisexual people's experiences with mental health services: A qualitative investigation. *Community Mental Health Journal*, 47(4), 378-389.

Eckstrand, K. L., Lunn, M. R., & Yehia, B. R. (2017). Applying organizational change to promote lesbian, gay, bisexual, and transgender inclusion and reduce health disparities. *LGBT health*, 4(3), 174-180.

Eisner, S. (2013). *Bi: Notes for a bisexual revolution*. Berkeley, CA: Seal Press.

Ellis, H. (1915). *Studies in the psychology of sex: Sexual inversion* (3rd ed., Vol. 2). Philadelphia: F. A. Davis Company.

Flanders, C. E., Dobinson, C., & Logie, C. (2015). "I'm never really my full self": Young bisexual women's perceptions of their mental health. *Journal of Bisexuality*, 15(4), 454-480.

Flanders, C. E., Dobinson, C., & Logie, C. (2017). Young bisexual women's perspectives on the relationship between bisexual stigma, mental health, and sexual health: A qualitative study. *Critical Public Health*, 27(1), 75-85.

Flanders, C. E., Shuler, S. A., Desnoyers, S. A., & VanKim, N. A. (2019). Relationships between social support, identity, anxiety, and depression among young bisexual People of Color. *Journal of Bisexuality*, 19(2), 253-275.

Friedman, M. R., Bukowski, L., Eaton, L. A., Matthews, D. D., Dyer, T. V., Siconolfi, D., & Stall, R. (2019). Psychosocial health disparities among black bisexual men in the US: Effects of sexuality nondisclosure and gay community support. *Archives of sexual behavior*, 48(1), 213-224.

Floyd, S. R., Pierce, D. M., & Geraci, S. A. (2016). Preventive and primary care for lesbian, gay and bisexual patients. *The American Journal of the Medical Sciences*, 352(6), 637-643.

Foy, A. A., Morris, D., Fernandes, V., & Rimes, K. A. (2019). LGBTQ+ adults' experiences of Improving Access to Psychological Therapies and primary care counselling services: Informing clinical practice and service delivery. *The Cognitive Behaviour Therapist*, 12.

Fredriksen-Goldsen, K. I., Shiu, C., Bryan, A. E., Goldsen, J., & Kim, H. J. (2017). Health equity and aging of bisexual older adults: Pathways of risk and resilience. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 72(3), 468-478.

Freud, S. (1920). *Three contributions to the theory of sex* (A. A. Brill, Trans.). S. E. Jelliffe & W. A. White (Series Eds.), Nervous and mental disease monograph series, No. 7 (2nd ed.). New York/Washington, DC: Nervous and Mental Disease Publishing Company.

Handtke, O., Schilgen, B., & Mösko, M. (2019). Culturally competent healthcare: A scoping review of strategies implemented in healthcare organizations and a model of culturally competent healthcare provision. *PloS one*, 14(7).

Hong, QN., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M-P., Griffiths, F., Nicolau, B., O'Cathain, A. & Rousseau, M-C, Vedel I. (2018). *Mixed Methods Appraisal Tool (MMAT), version 2018*. Registration of Copyright (#1148552), Canadian Intellectual Property Office, Industry Canada.

Hughes, T., Szalacha, L. A. & McNair, R. (2010). Substance abuse and mental health disparities: Comparisons across sexual identity groups in a national sample of young Australian women. *Social Science & Medicine*, 71(4), 824-831.

Hunt, R., Bates, C., Walker, S., Grierson, J., Redsell, S. & Meads, C. (2019). A Systematic Review of UK Educational and Training Materials Aimed at Health and Social Care Staff about Providing Appropriate Services for LGBT+ People. *International Journal of Environmental Research and Public Health*, 16(24), 4976.

Israel, T. (2018). Bisexuality: From margin to center. *Psychology of Sexual Orientation and Gender Diversity*, 5(2), 233-242.

Kaestle, C. E., & Ivory, A. H. (2012). A forgotten sexuality: Content analysis of bisexuality in the medical literature over two decades. *Journal of Bisexuality*, 12(1), 35-48.

Kidd, S. A., Howison, M., Pilling, M., Ross, L. E. & McKenzie, K. (2016). Severe mental illness in LGBT populations: A scoping review. *Psychiatric Services*, 67(7), 779-783.

Kinsey, A. C., Pomeroy, W. B. & Martin, C. E. (1948). *Sexual Behavior in the Human Male*. Bloomington, IN: Saunders Company.

Legge, M. M., Flanders, C. E. & Robinson, M. (2018). Young bisexual people's experiences of microaggression: Implications for social work. *Social Work in Mental Health*, 16(2), 125-144.

Leonard, W., Lyons, A. & Bariola, E. (2015). *A closer look at Private Lives 2*. Melbourne: Australian Research Centre in Sex, Health and Society, La Trobe University.

Li, T., Dobinson, E., Scheim, A. & Ross, L. (2013). Unique issues bisexual people face in intimate relationships: A descriptive exploration of lived experience. *Journal of Gay and Lesbian Mental Health*, 17(1), 21-39.

Lockwood, C., Porrit, K., Munn, Z., Rittenmeyer, L., Salmond, S., Bjerrum, M., Loveday, H., Carrier, J. & Stannard D. Chapter 2: Systematic reviews of qualitative evidence. In:

Aromataris, E. & Munn, Z. (Editors). *Joanna Briggs Institute Reviewer's Manual*. Adelaide: The Joanna Briggs Institute.

Loi, B., Lea, T. & Howard, J. (2017). Substance use, mental health, and service access among bisexual adults in Australia. *Journal of Bisexuality*, 17(4), 400-417.

MacLeod, M. A., Bauer, G. R., Robinson, M., MacKay, J. & Ross, L. E. (2015). Biphobia and anxiety among bisexuals in Ontario, Canada. *Journal of Gay & Lesbian Mental Health*, 19(3), 217-243.

McCann, E., & Sharek, D. (2014). Challenges to and opportunities for improving mental health services for lesbian, gay, bisexual, and transgender people in Ireland: A narrative account. *International journal of mental health nursing*, 23(6), 525-533.

McCann, E., Keogh, B., Doyle, L., & Coyne, I. (2019). The experiences of youth who identify as trans* in relation to health and social care needs: a scoping review. *Youth & Society*, 51(6), 840-864.

McCann, E. & Brown, M. (2020) Psychosocial needs of bisexual people: findings from a mixed-methods research study, *Issues in Mental Health Nursing*, 2020

Ng, H. (2016). Best practices in LGBT care: A guide for primary care physicians. *Cleveland Clinic Journal of Medicine*, 83(7), 531.

Noyes, J., Booth, A., Moore, G., Flemming, K., Tunçalp, Ö., & Shakibazadeh, E. (2019). Synthesising quantitative and qualitative evidence to inform guidelines on complex interventions: clarifying the purposes, designs and outlining some methods. *BMJ global health*, 4(Suppl 1), e000893.

Ojeda-Leitner, D., & Lewis, R. K. (2019). Assessing health-related stereotype threats and mental healthcare experiences among a LGBT sample. *Journal of prevention & intervention in the community*, 1-15.

Orgel, H. (2017). Improving LGBT Cultural Competence in Nursing Students: An Integrative Review. *ABNF Journal*, 28(1).

Ochs, R. (2005). What is bisexuality? In R. Ochs & S. E. Rowley (Eds.), *Getting bi: Voices of bisexual around the world*. Boston, MA: Bisexual Resource Center.

Pachankis, J. E., Clark, K. A., Burton, C. L., Hughto, J. M. W., Bränström, R. & Keene, D. E. (2019). Project ESTEEM protocol: A randomized controlled trial of an LGBTQ-affirmative treatment for young adult sexual minority men's mental and sexual health. *BMC Public Health*, 19(1), 1-12.

Pachankis, J. E., Clark, K. A., Burton, C. L., Hughto, J. M. W., Bränström, R. & Keene, D. E. (2020). Sex, status, competition, and exclusion: Intraminority stress from within the gay community and gay and bisexual men's mental health. *Journal of Personality and Social Psychology*.

Page, E. H. (2004). Mental health services experiences of bisexual women and bisexual men: An empirical study. In R. C. Fox (Ed.), *Current research on bisexuality*. New York, NY: Harrington Park Press.

Patterson, J. G., Tree, J. M. J. & Kamen, C. (2019). Cultural competency and microaggressions in the provision of care to LGBT patients in rural and Appalachian Tennessee. *Patient Education and Counseling*, 102(11), 2081-2090.

Persson, T. J., Pfaus, J. G. & Ryder, A. G. (2015). Explaining mental health disparities for non-monosexual women: Abuse history and risky sex, or the burdens of non-disclosure? *Social Science & Medicine*, 128, 366-373.

Pompili, M., Lester, D., Forte, A., Seretti, M.E., Erbuto, D., Lamis, D.A., Amore, M. & Girardi, P. *Journal of Sexual Medicine*, 11(8), 1903-1913.

Richters, J., Altman, D., Badcock, P.B., Smith, A.M., de Visser, R.O., Grulich, A.E., Rissel, C. & Simpson, J.M. (2014). Sexual identity, sexual attraction and sexual experience: The Second Australian Study of Health and Relationships. *Sexual Health*, 11(5), 451-460.

Ross, L. E., Dobinson, C. & Eady, A. (2010). Perceived determinants of mental health for bisexual people: A qualitative examination. *American Journal of Public Health, 100*(3), 496-502.

Ross, L. E., Siegel, A., Dobinson, C., Epstein, R. & Steele, L. S. (2012). "I don't want to turn totally invisible": Mental health, stressors, and supports among bisexual women during the perinatal period. *Journal of GLBT Family Studies, 8*(2), 137-154.

Ross, L. E., O'Gorman, L., MacLeod, M. A., Bauer, G. R., MacKay, J. & Robinson, M. (2016). Bisexuality, poverty and mental health: A mixed methods analysis. *Social Science & Medicine, 156*, 64-72.

Russell, S. T., & Fish, J. N. (2016). Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annual Review of Clinical Psychology, 12*, 465-487.

Saliba, D., MacCarthy, S., Darabidian, B. & Elliott, M. N. (2019). LGBTQ and aging culturally competent care for older sexual minority adults: A systematic review for healthcare delivery. *Innovation in Aging, 3*(Supplement_1), S742-S742.

Salway, T., Ross, L. E., Fehr, C. P., Burley, J. Asadi, S., Hawkins, B. & Tarasoff, L. A. (2019). A systematic review and meta-analysis of disparities in the prevalence of suicide ideation and attempt among bisexual populations. *Archives of Sexual Behavior, 48*(1), 89-111.

Schuler, M. S. & Collins, R. L. (2020). Sexual minority substance use disparities: bisexual women at elevated risk relative to other sexual minority groups. *Drug and alcohol dependence, 206*, 107755.

See, H., & Hunt, R. (2011). Bisexuality and identity: The double-edged sword: Stonewall research into bisexual experience. *Journal of Bisexuality, 11*(2-3), 290-299.

Steele, L., Ross, L., Dobinson, C., Veldhuizen, S. & Tinmouth, J. (2009). Women's sexual orientation and health: Results from a Canadian population-based survey. *Women & Health*, 49(5), 353-367.

Stewart, K., & O'Reilly, P. (2017). Exploring the attitudes, knowledge and beliefs of nurses and midwives of the healthcare needs of the LGBTQ population: An integrative review. *Nurse Education Today*, 53, 67-77.

Su, D., Irwin, J. A., Fisher, C., Ramos, A., Kelley, M., Mendoza, D. A. R., & Coleman, J. D. (2016). Mental health disparities within the LGBT population: A comparison between transgender and non-transgender individuals. *Transgender Health*, 1(1), 12-20.

Taylor, J. (2018a). Out of the darkness and into the shadows: The evolution of contemporary bisexuality. *The Canadian Journal of Human Sexuality*, 27(2), 1-7.

Taylor, J. (2018b). Bisexual mental health: A call to action. *Issues in Mental Health Nursing*, 39(1), 83-92.

Taylor, J., Power, J., Smith, E. & Rathbone, M. (2019). Bisexual mental health: 'Findings from the 'Who I am 'study'. *Australian Journal of General Practice*, 48(3), 138.

Taylor, J., Power, J. & Smith, E. (2020). Bisexuals' Experiences of Mental Health Services: Findings from the Who I Am Study. *Sexuality Research and Social Policy*, 1-12.

Van Der Pol-Harney, E., & McAloon, J. (2019). Psychosocial interventions for mental illness among LGBTQIA youth: A PRISMA-based systematic review. *Adolescent Research Review*, 4(2), 149-168.

Van, E. E. D., Mereish, E. H., Woulfe, J. M. & Katz-Wise, S. L. (2019). Perceived discrimination, coping mechanisms, and effects on health in bisexual and other non-monosexual adults. *Archives of Sexual Behavior*, 48(1), 159-174.

Yoshino, K. (2000). The epistemic contract of bisexual erasure. *Stanford Law Review*, 52(2), 353-461.

Search code	Query	Result
S1	Bisex*	13,088
S2	Mental health	565,905
S3	Mental disorder	185,360
S4	Mental illness	48,833
S5	S2 OR S3 OR S4	681,958
S6	S1 AND S5 Limiters: English, academic papers	1,583

Table 1: PsycINFO search strategy used and results

Table 2a: Methodological quality of qualitative studies using MMAT (Hong et al. 2018)

	Q1	Q2	Q3	Q4	Q5	Quality score
Dodge et al. (2012)	Y	Y	Y	Y	Y	H
Eady et al. (2011)	Y	Y	Y	Y	Y	H
Flanders et al. (2015)	Y	Y	Y	Y	Y	H
Flanders et al. (2017)	Y	Y	Y	Y	Y	H
Li et al. (2013)	Y	Y	Y	Y	Y	H
Legge et al. (2018)	Y	Y	Y	Y	Y	H
Ross et al. (2010)	Y	Y	Y	Y	Y	H

Y= yes, indicates a clear statement appears in the paper which directly answers the question;

N= no, indicates the question has been directly answered in the negative in the paper;

CT= can't tell, indicates there is no clear statement in the paper that answers the question.

Critical appraisal questions were as follows:

1. Is the qualitative approach appropriate to answer the research question?
2. Are the qualitative data collection methods adequate to address the research question?
3. Are the findings adequately derived from the data?
4. Is the interpretation of results sufficiently substantiated by data?
5. Is there coherence between qualitative data sources, collection, analysis and interpretation?

Table 2b: Methodological quality of quantitative descriptive studies using MMAT (Hong et al. 2018)

	Q1	Q2	Q3	Q4	Q5	Quality score
Flanders et al (2019)	Y	CT	Y	CT	Y	M
Loi et al. (2017)	Y	CT	Y	CT	Y	M
MacLeod et al. (2015)	Y	Y	Y	CT	Y	H
Taylor et al. (2019)	Y	Y	Y	CT	Y	H
Taylor et al. (2020)	Y	Y	Y	CT	Y	H

Y= yes, indicates a clear statement appears in the paper which directly answers the question;

N= no, indicates the question has been directly answered in the negative in the paper;

CT= can't tell, indicates there is no clear statement in the paper that answers the question.

Critical appraisal questions were as follows:

1. Is the sampling strategy relevant to address the research question?
2. Is the sample representative of the target population?
3. Are the measurements appropriate?
4. Is the risk of nonresponse bias low?
5. Is the statistical analysis appropriate to answer the research question?

Table 2c Methodological quality of mixed methods studies using MMAT (Hong et al. 2018)

	Q1	Q2	Q3	Q4	Q5	Quality score
Ross et al. (2012)	Y	N	CT	CT	Y	L
Ross et al. (2016)	Y	Y	Y	Y	Y	H

Van et al. (2018)	Y	Y	Y	Y	Y	H
-------------------	---	---	---	---	---	---

Y= yes, indicates a clear statement appears in the paper which directly answers the question;

N= no, indicates the question has been directly answered in the negative in the paper;

CT= can't tell, indicates there is no clear statement in the paper that answers the question.

Critical appraisal questions were as follows:

1. Is there an adequate rationale for using a mixed methods design to address the research question?
2. Are the different components of the study effectively integrated to answer the research question?
3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?
4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?
5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?

Table 3: Papers included in the review (n=15)

Citation and country	Aim	Sample	Methods	Main results	Recommendations
Dodge et al. (2012) USA	Identify mental health concerns among bisexual men engaged in sexual behaviour in midwestern United States.	Bisexual men (n=75)	Interviews	Social and personal stressors including stigma and isolation impacted negatively on mental health. Difficulty accepting bisexual identity, with white younger bisexuals more accepting of their identity. Avoidance and concealment used as coping strategy with bisexuality remaining hidden and invisible. Absence of bisexual community problematic.	Programmes and empowerment interventions needed focusing on self-acceptance, social networking, community building. Bisexual specific research involving men need to be undertaken to improve health outcomes.
Eady et al. (2011)	Explore bisexuals' experiences of mental health services and	Bisexuals (n=55)	Interviews and focus groups	Experienced mental health problems (69%). People felt judged or their experiences	Need to educate and develop skills for practitioners about bisexual health issues. More

Canada	attitudes of professionals.			dismissed or pathologised. Some had positive experiences with service providers, seeking education about bisexuality and being asked positive questions. Professionals reactions to gender identity disclosure affected experiences of services.	bi-specific research required in relation to mental health needs and support services. Structured interviews and self-report questionnaires may reduce reporting biases in future studies.
Flanders et al. (2015) USA	Highlight young bisexual women's mental health experiences, disparities and support needs.	Bisexual women (n=35)	Focus groups	Biphobia, mono-sexism and heterosexism impacted negatively on the participants mental health, with limited education resources available. Erasure and assumption of heterosexuality evident and limited understanding of bisexuality by health professionals. Lack of bisexual community spaces led to anxiety and depression. Internalised stigma evident, with some developing resilience.	Need for education and training programmes for culturally competent practitioners. Bi-inclusive healthcare and community spaces required. Future research required into biphobia and mono-sexism and the impact upon mental health. Intervention studies needed to identify and address health disparities.

Flanders et al. (2017) USA	Identify young bisexual women's views on bisexual stigma, mental health, and sexual health.	Bisexual women (n=35)	Focus groups	Erasure, negative stereotyping, pressure to prove identity and exclusion from queer community reported. Relationship pressures, for example, fears of infidelity and 'slut shaming' impacting upon mental health. Can lead to internalised biphobia, stress and anxiety.	Future research needed investigating stigma and negative sexual and mental health outcomes. There is a need to focus on other marginalised identities such as ethnicity and ability to more fully understand multiple identities and gender stereotypes.
Flanders et al. (2019) USA	Examine the relationships between social support, identity, anxiety, and depression in bisexual people of colour.	Bisexuals (n=136)	Survey and measures	Social support related to lower rates of internalised bi-negativity and increased identity affirmation and lower rates of depression and anxiety. Higher rates of bi-negativity associated with greater depression and anxiety diagnoses. Connection with LGBTQ community associated with negative identity experiences.	Sources of social support important for young bisexual people of colour. Greater access to counselling and support groups required. Further research needed involving racial and ethnic groups within bisexual populations including community and belonging to identify impact of mental health supports.

Li et al. (2013) Canada	Identify issues in bisexual intimate relationships.	Bisexuals (n=55)	Interviews and focus groups	Barrier to forming and maintaining intimate relationships. Misperceptions and assumptions based upon bisexual identity by potential partners with possibility of rejection. Acceptance and support from partners regarding bisexual identity can have a positive effect upon mental health. Polyamory and monogamy can lead to stressors and risks to bisexual relationships.	Mental health practitioners should to be aware of and sensitive to the unique relationship needs and experiences of bisexuals and the possibility of interpersonal conflicts. Research required to identify changes in societal attitudes towards bisexuals.
Legge et al. (2018) Canada	Describe young bisexual people's experiences of microaggression.	Bisexuals (n=91)	Daily diary approach	Erasure, stereotyping and oppressive microaggressions experienced institutionally and interpersonally. Ambivalence about coming out and invalidation and erasure. Bisexuals seen stereotypically as hypersexual, promiscuous, disloyal, attention-seeking and	Bisexual issues need to inform and be central to social work policy, practice, theory and education. Queer theory needs to be integrated within the education curricula for health and social care practitioners. Future research needs to

				inauthentic. Biphobia reported in LGBTQ context, with denial by some family and friends of the existence of bisexuality defined as 'bi-curious.'	include bisexual minority identities and older age groups.
Loi et al. (2017) Australia	Explore substance use, mental health, and mental health service access among bisexual adults and non-bisexual populations.	Bisexuals (n=366)	Survey and measures	Higher level of tobacco use in bisexuals and higher use of alcohol in bisexual males compared to non-bisexuals. 72% bisexuals reported using illicit drugs. Higher incidences of amphetamine and opioid drug use and mental health disorder among bisexuals than heterosexuals. Highest among non-binary people. More bisexual women than lesbians sought assistance for mental health problems.	Health care practitioners should have the knowledge and skills to provide culturally competent and responsive care and supports. More inclusive services, care and support required to reduce stigma and discrimination. Qualitative research required exploring views and experiences of bi people regarding mental health and substance use concerns.
MacLeod et al. (2015)	Examine the relationships between biphobia and anxiety among bisexuals	Bisexuals (n=405)	Survey and measures	Higher reports of anxiety in bisexuals (31% compared with 5% in general population). 39% of bisexuals involved in	Need more research examining biphobia and the impact upon mental health issues including health

Canada	in Canada.			volunteering, advocacy and activism. Bisexuals have low identification with the LGBT community leading to identity issues for some.	outcomes.
Ross et al. (2010) Canada	Examine the perceived determinants of mental health for bisexual people in Ontario.	Bisexuals (n=55)	Interviews and focus groups	Need to justify bisexual identity including trans people. Degraded or demeaned, seen as promiscuous and assumed to be in polyamorous relationships. Vulnerability and risk factors presented. Anxiety about disclosure to non-bisexuals including families. Biphobia and mono-sexism discriminatory experiences had significant negative effect on participants' mental health. Selfcare activities had positive emotional outcomes.	More research required on risk factors to guide mental health care, support and interventions. Focus on bisexual discrimination and mental health necessary. Need to develop interventions and supports that improve mental health of bisexuals.
Ross et al. (2012)	Identify mental health, stressors, and supports among bisexual women	Bisexual women (n=64)	Interviews and measures	Limited disclosure, feelings of discomfort and wishing to pass as heterosexual. Invisibility may	Education and training opportunities for professionals focusing on the

Canada	and lesbians during the perinatal period.			lead to lack of support within LGBT communities. Lack of psychosocial and bi-specific supports <i>per se</i> .	needs of new and prospective parents required. Mixed methods research needed to identify pathways to poor mental health outcomes for this population.
Ross et al. (2016) Canada	Examine the impact of bisexuality, poverty and mental health.	Bisexuals (n=302) Interviews (n=41)	Interviews and measures	Bisexuality adversely impacted on employment, low income and mental health issues such as PTSD and depression. 26% of the bisexual sample were living in poverty. Discrimination associated with lack of access to social support and mental health services leading to poorer mental health outcomes. Mental ill health can affect access to and maintaining employment.	Clinicians must address issues related to poverty: education, employment and housing, in the context of mental health care, supports and treatment. Increased access to bi-specific inclusive mental healthcare services needed. Further studies required to understand the relationship between income and inequality, discrimination, poverty and mental health to inform interventions.
Taylor et al.	Identify possible factors associated with poorer	Bisexuals	Survey and	59% of participants reported high or very high levels of	Health professionals, including GPs, need to be

(2019) Australia	mental health in bisexuals.	(n=2651)	measures	psychological distress. Suicidal ideation in 78% and suicide attempts in 28% of sample. Self-acceptance of bisexual identity important for mental well-being. Invisibility, erasure and not being out associated with poorer mental health. Increased levels of internalised biphobia and poorer mental health evident for people in heterosexual relationships and those with less supportive partners.	aware of the prevalence of bisexuality and to identify the relevant factors impacting upon their mental health to provide tailored and appropriate treatment and support options.
Taylor et al. (2020) Australia	Examine the experiences of bisexuals and their access to mental health services	Bisexuals (n=2651)	Survey and measures	Significant levels of psychological distress identified with trans and gender diverse people at 72% followed by cisgender women at 61% and cisgender men reporting 49%. Mental health service access was 83% at some point and 32% in the past 4 weeks. Discomfort felt by 16% disclosing their	Need for great provision and increased access to bisexual specific services. Further research required on bisexual's interactions with mental health services to improve access. Education programmes required for health professionals.

				sexuality and 32% may disclose to a health professional. Health professionals (49%) lacked knowledge re working with bisexuals. People with higher levels of psychological distress wanted greater access to bisexual specific services.	
Van et al. (2018) USA	Examine perceived discrimination, coping mechanisms, and effects on health in bisexuals	Bisexuals (n=442)	Survey and measures	Bisexual experiences of double discrimination by heterosexual and lesbian and gay men negatively impacted upon mental health. Excluded from LGBTQ communities, support groups and spaces. Rejection by potential partners. Sexual harassment and victimisation by heterosexuals and perceived as hypersexual. Discrimination by health professionals reported. Mental health issues such as PTSD, anxiety, and depression exacerbated through	Implications for future intersectionality research on bisexual health and discrimination to inform care, support and treatments are presented. Need further research into identity factors beyond sexual orientation. Larger samples across different gender groups required to enable comparisons.

				discrimination. Some resilience experiences identified.	
--	--	--	--	---	--

Figure 1: PRISMA flowchart of search strategy and outcome (Moher et al. 2015)