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Psychosocial factors and ageing in older

lesbian, gay and bisexual people: A systematic review of the literature

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Abstract

Aims and objectives: To synthesise and evaluate the extant literature investigating the psychosocial influences on ageing as a lesbian, gay or bisexual person, in order to develop understanding about these influences and guide future research in the area.

Background: Research suggests there may be specific psychological and social factors relevant to ageing for individuals with a non-heterosexual identity.

Design: A systematic review was conducted on empirical research involving lesbian, gay and bisexual individuals aged 60 or above.

Methods: The Cochrane Database, PsychINFO, MEDLINE, Web of Science and Google Scholar were searched and 41 studies met inclusion criteria. The majority had not been reviewed in earlier review articles.

Results: Findings were within two domains: psychological, consisting of sub-themes relating to identity, mental health and body image; and social, consisting of relationships, social support, discrimination, caregiving and receiving, community, accessing services and housing. The results suggest lesbian, gay and bisexual individuals mostly adjust well to ageing identities, with mediating influences including self-acceptance and connection with peers. Challenges experienced included ageism and heteronormative health and social care services; intimate friendships, social support and respectful professionals mitigated such threats and facilitated successful ageing. Methodological issues related to sampling procedures,

such as purposive sampling through the gay community and limited generalisability due to the homogeneity of participants. Additionally, there was a widespread lack of heterosexual control groups. However, most studies used appropriate measures and acknowledged inherent limitations.

Conclusion: Psychosocial influences included the challenge of societal stigma, but also resilience individuals demonstrate through a positive attitude. These factors must continue to be investigated for services to best meet the needs of this population.

Relevance to clinical practice: Clinicians are well placed to assist individuals draw on resilience when facing ageing challenges. Also, clinicians should be aware older people may have prior negative experiences of accessing services and try to involve 'families of choice' in care planning.

What does this article contribute to the wider global clinical community?

- This article provides an up-to-date, comprehensive review of the literature on the psychosocial influences that shape ageing for LGB individuals.
- Psychosocial factors are relevant to lesbian, gay and bisexual (LGB) populations, whose sexuality may be marginalised within mainstream services and/or their wider societal context.
- These factors uniquely influence the ageing process for LGB individuals and shape their experience of ageing.
- The findings can be of use to clinicians working with older LGB individuals, to better understand and provide support to these populations.

Keywords: Ageing, lesbian, gay and bisexual, older adults, sexuality, psychosocial.

INTRODUCTION

Older age is a developmental life stage traditionally theorised to begin around the age of 60 (Erikson 1950, Levinson 1996). Additionally, the majority of adults consider 60 to be the age they reach 'later life or old age' (Humphrey *et al.* 2011). This life stage can involve reflection on lifetime achievements, the opportunity to pursue personal interests during retirement and the consolidation of character strengths and resilience; however, it also involves challenges including role loss, the death of loved ones, threats to independence and chronic health conditions (Hash & Rogers 2013). Also, older people experience age-related discrimination and many feel services do not pay sufficient attention to their individual needs (Age Concern and Help the Aged 2009). This includes acknowledging diversity in ageing, such as sexual orientation, and identities beyond the "white heterosexual majority" (Northmore *et al.* 2005 p. 5). Between 5% and 7% of people are non-heterosexual (Stonewall 2012), yet minority sexuality issues are largely not on the mainstream research agenda (Newman & Price 2012). In this article, 'non-heterosexual' refers to individuals who identify as lesbian, gay or bisexual (LGB).

Lesbian, gay and bisexual context

Historically, non-heterosexual sexual orientations have been pathologised as representative of mental illness, with the American Psychiatric Association (APA) first listing homosexuality as a sociopathic personality disturbance in 1952 (American Psychiatric Association). In 1973 the American Psychiatric Association removed homosexuality as a pathological disorder and issued a statement of support for gay rights, followed in 1974 by the American Psychological Association (American

Psychiatric Association 1973, Lamberg 1998). Legal rights for LGB people continue to improve in many Western societies, such as recent equal marriage legislation.

These changes are important in reducing health inequalities; more socially integrated relationships, such as through marriage, are related to better health outcomes for gay adults over 50 (Williams & Fredriksen-Goldsen 2014). Positive changes are happening at a slower pace in some Western and many non-Western societies (Kollman & Waites 2009); homosexuality is illegal in 75 countries and punishable by death in five (Carroll & Itaborahy 2015).

Even though socio-legal conditions are improving in certain Western countries, health and social inequalities remain for LGB people (Hunt & Minsky 2007). These include social exclusion, stigma and discrimination due to homophobia, and heterosexism, the assumption of heterosexuality, ingrained in social structures. Such factors continue to influence the lives of LGB people as they age, and they report greater ageing concerns than heterosexual peers when approaching older age (Stonewall 2011). These include needing care, independence, mobility, health, housing and mental health. However, there may be adaptive factors that help to mediate these social influences, such as individual resilience, or the creation of “families of choice” for LGB individuals estranged from biological families (Weeks *et al.* 2001, p.9).

Beyond traditional models there is little theory specifically conceptualising older age for LGB individuals (Hash & Rogers 2013). Kimmel (1978) suggested LGB individuals experience identity conflict early in life as they reconcile their sexual orientation; resolving this crisis develops “crisis competence”, which is useful in terms of losses and changes in older age (Kimmel 1978, p. 117). Friend (1990) theorised that older LGB individuals build ageing identities based upon socially

constructed meanings. The current cohort of older adults may have lived through heterosexist and homophobic contexts; if they resisted internalising such messages they might be able to adapt to ageing effectively. Overall, psychosocial factors are central to models of ageing.

Psychosocial factors can be defined as influences that act between the social and individual levels (Martikainen *et al.* 2002). These are not fully individual or fully social, but are an interaction between these two levels that influence an individual's mind or behaviour in relationship with the broader social context. The potential social challenges that non-heterosexuals face likely interact with individual development in older age, to create psychosocial influences that shape the ageing process.

Previous literature reviews

Previous reviews have begun to explicate the psychosocial influences on ageing for this population. The earliest review discussed the historical emergence of research in this area (Cruikshank 1991) and concluded that social issues such as discrimination impact ageing, but acknowledged the weaknesses of an evidence base that relies on small-scale unrepresentative samples. One review relating to gay male gerontology and one to older lesbians outlined the shifting focus from debunking pathological stereotypes towards quantifying the challenges such stereotypes provoke (Wahler & Gabbay 1997, Gabbay & Wahler 2002). A small-scale review of ten studies involving gay men over 45 years old described how older gay men may conceal their sexual orientation in healthcare settings due to fear of discrimination (Kean 2006). Haber (2009) proposed upcoming generations of older lesbians and gays lived through gay liberation, so will have higher expectations and advocate for responsive policies.

Fredriksen-Goldsen and Muraco (2010) took a lifecourse perspective on ageing and sexual orientation amongst 58 studies conducted in North America from 1984 to 2008. The review outlined psychosocial factors in ageing, the challenges of identifying with a marginalised population and the importance of creating ‘families of choice’ to provide support. It included research involving participants aged 50 or over; it is slightly unclear how this inclusion criterion was applied as studies included participants under 50 whose results were not disaggregated. The most recent review focused solely on gay men (Fenkl 2012), concluding that feeling threatened when accessing services may rekindle earlier discrimination fears, so services need to be culturally appropriate.

The majority of published reviews had unclear or relaxed inclusion criteria. For example, most reviews considered research involving those over 40 to represent older age. Throughout the present review, ‘older age’ refers to adults aged 60 or above; this is considered a useful definition when investigating an international population (United Nations 2012), and is in line with psychosocial developmental models (Erikson 1950). Search strategies are missing from some of the previous reviews, they are mostly relevant to a North American context, and aside from widespread acknowledgement of study sampling limitations, designs and methodologies have largely not been critically appraised. Researchers typically define sexual orientation in terms of behaviour, attraction and identity. Within the extant literature, the categories of lesbian, gay and bisexual (LGB) have been widely used to indicate sexual orientation and participants have been required to self-identify with these labels. It is important to note criticisms levelled at such categories; for example, sexual orientation may be more appropriately viewed as a continuum, rather than definable categories (American Psychological Association 2012). Additionally, some

individuals that engage in homosexual sexual activity may not identify with such labels so are not represented in the research. The present review draws on existing research, so will be limited to studies involving self-identified LGB individuals.

AIMS

The present systematic review aimed to:

- Gain understanding of the psychosocial influences that may contribute to ageing as an LGB person
- Summarise the empirical research in this area
- Review the methodology of these studies and critically appraise and synthesise their findings
- Outline research and clinical implications

METHODS

To identify relevant studies a systematic review of peer-reviewed articles published up to December 2014 was conducted. PsycINFO, MEDLINE, Web of Science and Cochrane databases and Google Scholar were searched using broad-based terms: [lesbian *or* gay *or* bisex* *or* homosex* *or* sexual orientation *or* sexual minority *or* sexual preference]; *and* [ageing *or* aging *or* older adults *or* elder *or* gerontology *or* gerontological]. (Figure 1). Studies were included if: (a) all participants were 60 or older, *or* (b) the results for LGB adults aged 60 or above were disaggregated. Sexual orientation and gender identity should be considered distinct characteristics of an individual (American Psychological Association 2006), however previous research has often indiscriminately grouped LGB people with other sexual minorities. The review focused on ageing and sexual orientation specifically, so studies were excluded if a majority of participants identified as transgender. Articles focusing on

HIV/AIDs were excluded, as this area has a well-reviewed literature base (e.g. Martin *et al.* 2008) (Table 1).

Figure 1 here

Table 1 here

Data extraction was conducted on each study meeting the inclusion criteria to facilitate the process of reviewing the articles and synthesising the data. Consideration was given to sample characteristics, methodologies used and main results. Studies adopted a range of heterogeneous methodologies so various evaluative frameworks were required. Most larger scale studies were cross-sectional and the STROBE checklist was employed as an evaluative tool (STROBE 2007). Qualitative studies were appraised using Yardley's (2000) criteria. These include: commitment and rigour, transparency and coherence, sensitivity to context, and impact and importance. Meltzoff's (1998) suggestions for critically evaluating research were considered throughout.

Structure of review

Psychosocial factors explored in the retrieved studies were diverse. As such, the review has been organised into broad domains of psychological and social functioning. Within these domains, the literature has been further grouped into themes related to specific psychosocial aspects.

RESULTS

The final sample included 42 studies summarised in Table 2. The majority had not been covered in previous reviews.

Table 2 here

Psychological factors

Identity

Monika Kehoe conducted two of the earliest studies into the identity of ageing lesbian women (Kehoe 1986, Kehoe 1988). In the first study, a large majority perceived themselves as well-adjusted to ageing (Kehoe 1986). Furthermore, many participants rated their self-image as 'good' or 'excellent' with only one rating it as 'poor'. Kehoe concluded older lesbians have a positive self-image and proposed they are better equipped for the ageing process, as they have previously negotiated challenging life transitions. This concept reflects Kimmel's (1978) theory of LGB ageing which suggested that reconciling sexual orientation earlier in life develops useful "crisis competence" towards challenges of ageing. However, as no comparisons with a control group are provided, such as heterosexual counterparts, it is unclear if older lesbians are any better prepared for ageing. Kehoe hypothesised that reliability was affected due to a generational effect, whereby respondents were resistant to discuss intimate matters, so biased towards positive self-representations. Additionally, as the questionnaires were not validated and possibly subject to this respondent bias, it is not possible to conclude older lesbians have positive self-identities.

These investigations were extended when 50 additional women completed a version of the aforementioned survey (Kehoe 1988). The majority felt positively about their lesbian identity and 86 scored in the middle or top range on a standardised measure of adjustment to ageing. For both studies, recruitment involved adverts in gay bookstores, feminist/lesbians newsletters and gay academic organisations. Thus, the self-selected and homogeneous sample consisted of well educated, connected and 'out' lesbians from white, middle-class backgrounds. This is a significant limitation to external validity and it is unclear if these findings would extend to more diverse, disadvantaged or hidden populations.

Two other early studies attempted to destigmatise older gay and lesbian identities (Kelly 1977, Minnigerode & Adelman 1978). Kelly (1977) reported a content analysis on interviews with older gay men, suggesting being gay itself did not cause problems for ageing, but societal stigma was an issue. A small-scale pilot study interviewed older lesbians and gay men, and compared adaptations to ageing (Minnigerode & Adelman 1978). Dimensions of self-concept were investigated including age-status identification and self-acceptance. The study does not report how this qualitative analysis was conducted, but proposed that gaining self-acceptance was a lifelong process. For both studies, the reporting of the qualitative analysis was poor quality by contemporary standards (Yardley 2000); there were no details around analytical process or quality assurance. Overall, these studies were historically significant, as they provided counter-evidence to prevailing negative stereotypes that all older LGB individuals experienced maladjustment to ageing (Berger 1984).

A more rigorous mixed-methods study, that comprehensively reported a discriminant analysis and used standardised measures, reported high life satisfaction and low self-criticism were significantly related to high satisfaction with being gay or lesbian (Adelman 1991). Conversely, low life satisfaction and high self-criticism were related to low satisfaction with a gay identity. In relation to ageing, Whitford (1997) reported a significant relationship ($p = .018$) between age of respondent and acceptance of the ageing process. Gay men over 60 were more likely to be very accepting of the ageing process than those between 50 and 60, in this clearly designed and appropriately measured study. Also, acceptance of one's ageing process was related to participation in gay social organisations for those in the older age group. These findings suggest self-acceptance of one's sexual identity helps adjustment to

ageing; this relationship may be mediated by increasing age and involvement in gay organisations.

Aspects of identity were explored in three qualitative studies by Dana Rosenfeld (Rosenfeld 1999, Pollner & Rosenfeld 2000, Rosenfeld 2009). Across these studies, interview transcripts were drawn from the same sample of 49 participants, dependent on the focus of the study. Rosenfeld (1999) explored the production of identity amongst a sub-sample of older gay men and lesbians, particularly in relation to the gay liberation movement marked by the 1969 Stonewall riot in New York City. A distinction was made between those that identified as homosexual prior to the gay liberation movement and whose identities were shaped through stigmatising discourses, and those who began to identify as homosexual throughout the era of gay liberation, from 1969 onwards. The available discourses appeared to shape and inform identity for these two cohorts in older age. The first cohort viewed presenting a homosexual self in rejecting environments as incompetent, as it would not be self-protective. The second cohort rejected hiding sexual orientation, as it would mean internalising heterosexist depictions of homosexuality as shameful rather than positive and “revolutionary”. Pollner and Rosenfeld (2000) further elucidated differences in response to the “heterosexual other”, who were portrayed as threatened by older homosexuals. To mitigate this threat, older people engaged in two responses: “passing” as heterosexual or sexual orientation disclosure. While the first group feared exclusion, those who disclosed felt concealment was duplicitous and threatened self-identity.

A third study extended these ideas and uncovered the strategic use of heteronormativity, such as gender conforming (Rosenfeld 2009). This provides personal safety and ‘respectability’ in the eyes of heterosexuals, which is threatened

by socially undesirable 'flaunting' of homosexuality. Generally, these studies were of a good quality, reported with openness and transparency. In terms of analysis, the first study described using phenomenological maps and the third study used inductive grounded theory. However, there was no stated analytic framework for the second study, which is a limitation to methodological transparency. Also, it is unclear how the author arrived at the sub-sample in the third study, i.e. if they were the sub-sample that preferred passing as heterosexual. The results usefully indicate ways that identity is experienced; this includes potential threats to self-identity and positions that can be adopted in relation to sexuality disclosure, heterosexuals and gender performance.

Mental health

Studies have explored aspects of psychological and mental health. The aforementioned Kehoe (1988) study found a majority of older lesbians reported they were in good or excellent emotional health. However, the measures used were not standardised, limiting internal validity. Dorfman et al. (1995) found 15% of a sample of older gay men and lesbians scored clinically on a standardised measure of depression; such standardised measures improve internal validity. These scores were compared with a heterosexual control group and a multiple regression revealed no significant differences after controlling for demographic factors. Higher social support scores were significantly associated with lower depression scores ($R^2 = 0.17$, $F_{(1,106)} = 22.432$, $p < .001$), indicating an influence on mental health. Drawing on Kimmel's (1978) theory, it is hypothesised painful coming out experiences have prepared individuals to cope with ageing challenges. The authors link these findings to Friend's (1990) theory and suggest role losses associated with ageing are easier for homosexuals whose gender roles may have been more flexible throughout life.

These notions were endorsed by Orel's (2004) focus groups; the majority of participants felt that the psychological resilience needed to 'come out' prepared them for the psychological issues of ageing. Even so, half had used mental health services, and discussed the importance of "gay-friendly" therapists. Also, there appeared to be differences for those not "out" to family, who felt this non-disclosure limited their emotional support. This was a well-described qualitative study using content analysis, limited slightly by a self-selected, mostly out convenience sample recruited through LGB organisations.

A research team in North America conducted a large cross-sectional study into ageing, presenting results in four separate articles (Grossman *et al.* 2000, D'Augelli & Grossman 2001, D'Augelli *et al.* 2001, Grossman *et al.* 2001). The sample consisted of 416 older LGB adults recruited through gay organisations and snowball sampling. The reports score highly on the STROBE checklist, including clear rationale and stated hypotheses, tested using appropriate measures and statistical analyses. Sampling limitations were acknowledged in terms of generalisability and the potential for bias with self-selected participants. Two articles focused on mental health. D'Augelli *et al.* (2001) investigated predictors of mental health, including the influence of participants' attitudes towards their sexual orientation. Most reported good or excellent mental health and low levels of Personal Homonegativity, a measure of internalised homophobia based on the Revised Homosexuality Attitude Inventory (RHAI) (Shidlo 1994). Men scored significantly higher than women on the RHAI, indicating they felt less positive about their sexual orientation. Bisexual participants scored significantly higher than gays and lesbians on the RHAI, again suggesting discomfort with sexual orientation. D'Augelli and Grossman (2001) found older men experienced significantly more internalised homophobia, alcohol abuse and

suicidality related to their sexual orientation. However, Grossman *et al.* (2001) reported fairly high levels of self-esteem amongst the whole sample, with no differences related to gender or sexual orientation.

Overall, it was found that better mental health was significantly correlated with more positive views of one's sexuality, feeling less suicidal due to one's sexuality, higher self-esteem and better cognitive functioning. They looked specifically at cognitive functioning as one aspect of mental health. Of the sample, 20% felt their cognitive functioning had worsened over the preceding five years. This had a significant relationship with age, as older participants reported decreased cognitive functioning ($r(407) = -0.16, p < .001$). In particular, almost one third of the sample reported that their memory had worsened over the preceding five years; again, this was significantly related to increasing age ($r(407) = -0.16, p < 0.001$). Diminished cognitive functioning was found to predict both poorer current mental health and worse mental health over the preceding five years. This relationship can also operate in the opposite direction, as poor mental health impacts cognitive functioning (Goodwin 1997). In line with Kitwood (1997), diminished cognitive functioning for LGB individuals may additionally relate to negative social environments, stigmatised identities and social isolation. There may also be individual differences in reporting or perception of cognitive difficulties.

A higher percentage of people knowing about one's sexual orientation predicted a smaller decline in mental health over the preceding five years. These results suggest that generally, older LGB individuals report good mental health, with openness about sexuality a possible protective factor. However, there are certain vulnerable groups and risk factors for poorer mental health. Gay men and bisexuals may be more likely to feel uncomfortable with their sexuality and such feelings may be associated with

poor mental health. Also, those who are older might be at risk of poorer mental health due to diminishing cognitive function, or at risk of declining cognitive functioning due to poor mental health or their wider social context.

Grossman *et al.* (2014) presented comparable findings with 80% of older adults rating mental and emotional health as good or excellent, indicating consistency over the changing social context of the past decade. A slightly higher proportion of participants, 39%, felt their memory had worsened over the preceding five years. Another good quality cross-sectional study reported concerns about declining cognitive ability were common amongst older lesbians and gays (Hughes 2009). Aside from these mentions, age-related memory issues or cognitive decline were not explored in the reviewed articles.

A transparent and high quality study adopting a grounded theory approach developed a model of successful ageing for older LGBT adults (Van Wagenen *et al.* 2013). The authors attended to ethical issues and provided information regarding the interview procedure and grounded theory analysis. Quality assurance and methodological rigour involved analytic triangulation and peer debriefing. Although few participants could be described as experiencing ‘problem-free’ ageing, optimistic attitudes played a determining role in successful ageing. Such positive attitudes could perhaps explain the generally good mental health self-reports in the aforementioned studies. The authors propose ability to cope with problems determines successful ageing. Four levels of coping along a continuum were proposed; these were “traditional success”, “surviving and thriving”, “working at it” and “ailing”. Most participants were in the “surviving and thriving” and “working at it” gradations, indicating some worries about ageing, challenges with staying connected to others and possible mental health conditions. A smaller number were classed as “ailing”,

indicating struggles to cope and dissatisfaction with life. As the authors acknowledged, the lack of a comparison group makes it impossible to conclude these ageing experiences are unique to LGBT older adults. However, these results suggest that although older LGBT adults may experience challenges in ageing, they demonstrate resilience and beneficial optimism.

Body image

Psychological adjustments to changing bodily appearance have been explored as an aspect of ageing. In an early small-scale study (Minnigerode & Adelman 1978), older gay men expressed greater concern about age-related physical changes than lesbians, suggesting that dissatisfaction with physical self in older age may vary between these groups. A large-scale cross-sectional study reported similar findings, in that gay men across all ages, including over 65s, expressed significantly higher concerns about ageing body image than lesbians (Hughes 2009). However, in a solely lesbian sample, even though 72% self-rated physical health as being good or excellent, 46% of the sample considered themselves “too fat” (Kehoe 1988). These statistics indicate it may be pertinent to elucidate psychological experiences of ageing bodies, as the meanings made of ageing bodies are central to making sense of ageing (Laz 2003).

Slevin and Linneman (2010) explored the experiences of ageing bodies during interviews with 10 gay men. A well-described narrative analysis examined how they discuss the masculinities of their ageing bodies within a social context that stigmatises being old and gay, and exalts youthful, heterosexual masculinity. Some older gay men resisted and counteracted stigmatised identities through drawing on material resources to appear youthful and distancing themselves from similarly aged homosexual peers. Stigma extended to the gay community, where most felt ageism can be more pronounced, as one participant explained, “gays are much more ageist than straights”

(Slevin & Linneman 2010, p. 15). It is suggested that having learned to live with one stigmatised identity (being gay), older men are well-positioned to adapt to a second such identity (being old). However, they suggest acceptance of sexual orientation may be easier than acceptance of corporeal ageing, when masculinity and independence may both be compromised. The authors acknowledged their sample was privileged through being well-educated, white and middle-class. It is unclear how potentially less-resourced populations, such as those with socioeconomic disadvantages, may adjust to ageing bodies.

Jonson and Siverskog (2012) investigated self-mocking comments regarding age-related appearance amongst those using a dating website. Two separate comprehensively described content analyses on dating profiles gave rise to dual perspectives on age-related body changes. One perspective viewed self-mocking comments as subverting age-appropriate behaviour, but ultimately contributing to constructing old age as problematic. The second perspective viewed such comments, about grey hair and impotence, as displays of marketable characteristics, such as humour and honesty. These dual perspectives illustrate the variety of positions that can be adopted in relation to bodily appearances and their construction, and the problems and opportunities these afford.

Social factors

Relationships

A number of studies have explored sex and relationships. Pope and Schulz (1991) investigated whether sexual behaviour decreases among gay men as they age. This high quality cross-sectional study had a meaningful rationale, to extend the limited understanding in this area. The authors provided clear hypotheses and a comprehensive methodology, including sensitivity to participant fears around how

data could be used. Age group comparisons were made and the authors concluded that older gay men maintain an interest in sex and the ability to function sexually. A study of similar quality, which provided information regarding procedure, settings and participants, found a satisfying sex life was related to subjective wellbeing and scores on a validated self-esteem measure for older gay men (Lyons *et al.* 2013). The analysis was conducted using a well-described hierarchical multiple regression. Men over 60 were just as likely to be in a relationship than those in their forties and fifties, with 56% in an on-going relationship. Being in a relationship was a psychosocial factor related to wellbeing.

For older lesbians, 43% defined themselves as being in a relationship that was both emotional and sexual (Kehoe 1988). Sex was reported as less important after the age of 60, with a Pearson's product correlation of 0.18, although 66% considered themselves sexually active. In terms of partnerships, a high quality cross-sectional study found slightly higher rates of older lesbians were partnered than gay men, but these differences were not significant (Jenkins Morales *et al.* 2014). For all participants aged 65 and older, 41% were in relationships and those who had partners were less likely to be lonely. Companion relationships with animals have been explored in a recent grounded theory study (Putney 2014), which meets Yardley's criteria for qualitative research including rigour and transparency. Pets attenuated loneliness and fostered self-acceptance through unconditional love; one participant who had lived through a homophobic context, stated, "They don't care if I'm a lesbian. They never have" (Putney 2014, p. 7). In the only comparison study, Dorfman *et al.* (1995) found older gays and lesbians were significantly more likely to not have a partner than heterosexuals.

Social support

Grossman *et al.* (2000) presented a high quality cross-sectional study with a clear objective to investigate the nature of support networks for older LGB individuals. They found older LGB adults had an average of six others in their support networks. These were mostly close friends, who provided social support, and partners, siblings and relatives who provided emotional support. Those who were living with partners were less lonely, as measured by the standardised Loneliness Scale (Hays & DiMatteo 1987), and reported better mental health. This corresponds with findings that loneliness is higher amongst older gay men who live alone (Whitford 1997).

Grossman *et al.* (2001) reported larger support networks were related to higher self-esteem ($r = 0.15, p < .01$). Dorfman *et al.* (1995) also found social factors influenced mental health, predicting 17% of the variance in depression. There were similar rates of social support regardless of sexuality, but while heterosexuals primarily garnered this from family, homosexuals drew on friendships. Similarly, Lyons *et al.* (2013) reported that gay men over 60 drew greatest support from friendships. Furthermore, thematic analysis of interviews indicated that strong social networks supported the ageing process for gay men (Kushner *et al.* 2013).

Both Kehoe (1988) and Quam and Whitford (1992) reported mixed sexuality networks for older LGB individuals, although the majority of lesbians had almost exclusively lesbian close friendships. A well-reported narrative analysis of the stories of two older lesbians suggested their friendship provided an anchor through the ageing process, which enabled them to create safe and positive environments. One participant commented, “If you’ve got one good friend, you’ve got it made” and the other agreed, “You’ve got the world” (Hall & Fine 2005, p. 186). Group work was helpful in creating intimate friendships for older lesbians, as their circle of friends decreased due to death and relocation (Drumm 2005). The article provides a

comprehensive presentation of this process using a Record of Service, including efforts to remain objective and assure quality.

Discrimination

Over their lifetimes, two thirds of those in a large cross-sectional study had experienced verbal abuse in relation to sexual orientation (D'Augelli & Grossman 2001). Overall, 65% had experienced at least one kind of victimisation and males were more likely to have been physically assaulted. This compares with the Jenkins Morales *et al.* (2014) study, whereby males were most likely to have been physically or sexually assaulted. However, women who had been physically attacked reported the poorest mental health. Compared to those who had not been victimised or solely experienced verbal abuse, those who had experienced physical attacks were lonelier, had significantly lower self-esteem and higher internalised homophobia. Through their working lives, 72% of older lesbians and 79% of gay and bisexual males had experienced discrimination due to their sexuality (Kehoe 1988, D'Augelli & Grossman 2001).

Lyons *et al.* (2013) found the percentage of men reporting recent discrimination relating to their sexual orientation significantly decreased between those in their forties, fifties and sixties. Studies have reported that those over 60 were less likely to disclose their sexuality than those who were younger (Lyons *et al.* 2013, Jenkins Morales *et al.* 2014). This lack of open disclosure could mean they are less vulnerable to discrimination. Another study found no correlation between sexual orientation disclosure and victimisation or violence (Jenkins Morales *et al.* 2014). However, as feelings of safety in the wider community increased, so did disclosure ($r = 0.231, p < .01$). This may indicate older men make the decision that their contexts are not safe in terms of receptiveness to a non-heterosexual identity, so do not

disclose. Age-related discrimination increased between men in their forties, fifties and sixties, and any discrimination was a key factor in self-esteem and wellbeing, indicating the ongoing challenges for this population (Lyons *et al.* 2013).

Caregiving and receiving

For those aged between 65 and 74, and those over 75, Croghan *et al.* (2014) discovered similar rates of caregiving responsibilities in a highly scoring cross-sectional study. The majority of these individuals were caring for a friend or neighbour, with a substantial minority caring for a partner. For those over 65, almost three quarters would rely on a partner, friend or neighbour to be their primary caregiver, not a family member. Notably, almost double would primarily rely on a friend or neighbour rather than a partner. The three quarters figure is higher than Kehoe (1988), where 59% reported that a non-family member would care for them. However, these findings indicate the consistent importance of a chosen family for this population. In terms of receiving care Grossman *et al.* (2014) found 22% had experienced at least one type of harm from a caregiver; this was a strong cross-sectional study with a clear design and analysis. They found 63% of participants reported self-neglect and two thirds lived alone, comparable with other findings that a majority of those over 65 live alone (Croghan *et al.* 2014). No research elucidating the qualitative nature of caregiving experiences was identified in the search.

Community

Involvement with the wider LGB community has been explored in the research. Quam and Whitford (1992) found 70% of older people accessed lesbian or gay social groups; however, this may be due to a selection bias, as participants were primarily recruited through such groups. Older gay men were more likely to participate in social groups than younger men, and more likely to participate in senior social

organisations than older lesbians (Whitford 1997, Gardner *et al.* 2014). All older lesbians in a focus group expressed the importance of LGB community membership (Orel 2004). Older gays and lesbians participating in an intergenerational workshop reported an increase in wellbeing and collective pride (Galassi 1991); however the analytic framework utilised was not stated.

However, ageism in the gay community has been noted in two qualitative studies (Kushner *et al.* 2013, Slevin & Linneman 2010), posing a challenge for older gay men. Also, older men may feel a generational divide with a younger cohort that has reached psychological and social milestones at earlier ages and in more tolerant sociocultural conditions (Drasin *et al.* 2008). Drasin *et al.* present a well-controlled cross-sectional design, with clear hypotheses and an appropriate linear regression analysis. A Hong Kong-based project explored how a changing societal context had influenced older gay males' experiences of LGB community spaces (Kong 2012). Within the study participants reported that contemporary spaces were less tolerant of age diversity, as they were youth and physical image obsessed, and often inaccessible without financial capital. To resist this 'homonormativity', some older gay men became LGB community volunteers. This article is significant as it presents the only reviewed findings from an Asian context.

Accessing health and social care services

Concerns around accessing health and social care services have been widely documented in the literature. Even though evidence suggests older adults are more satisfied with support received from people who know their sexuality (Grossman *et al.* 2014), a majority expressed fears about coming out to service providers (Clover 2006, Galassi 1991). Recent findings suggest older LGB adults remain cautious about being out to healthcare providers, partly because of fears around not being accepted

and respected (Stein *et al.* 2010). Participants felt this was more likely to be a problem when receiving personal or nursing care and that they may be neglected if they were openly gay. Furthermore, Smith *et al.* (2010) found older adult services may be perceived as unfriendly or even hostile to LGB individual, which is problematic as needs go unmet. The study scores well in relation to the STROBE checklist and the authors acknowledge purposive sampling affects generalisability. A large high quality cross-sectional study reported 53% of respondents were dissatisfied with senior services, feeling they did not meet their unique needs (Orel 2014). Participants were asked what factors affected their use of services and 32% responded “discrimination or fear of discrimination”. In terms of health care, 42% reported negative experiences related to sexual orientation.

Clover (2006) proposed that a “one size fits all” approach to healthcare does not meet older people’s needs well and sought to elucidate the specific barriers for older gay men when accessing services in the UK. The high quality and transparent qualitative analysis explored experiences of health and social care, revealing that although anticipation of discrimination was more common than actual experiences, there were issues. For example, one participant described a historical negative experience with a homophobic doctor who was reluctant to examine him, that led to service avoidance despite unmet health needs. Another participant was reluctant to ask his doctor questions about gay sex as he felt they had a limited understanding of gay sexuality and “what gay men actually do” (Clover 2006, p. 47). Such shared feelings amongst interviewees meant partnerships and relationships were rarely discussed with healthcare professionals. This is problematic as a lack of open discussion means emotional and mental health needs, such as bereavement, social

isolation and life changes could remain unaddressed. Positive experiences were reported when workers were empathic, respectful and demonstrated interest.

Opinions regarding specific LGB services have been explored and seem to vary depending on age. In one cross-sectional study, higher rates of those aged between 50 and 64, than those 65 or over reported they would be comfortable using specific services (Jenkins Morales *et al.* 2014). Over 65s perceived more barriers to healthcare, reported greater fears they would be treated differently and felt more unsafe than the younger group. Generally, as age increased disclosure of sexual orientation to healthcare providers decreased, perhaps due to feeling unsafe. Overall, both age groups felt there were not enough mainstream health professionals adequately trained in LGB health issues. This compares with other cross-sectional findings, which score highly on the STROBE criteria, that those over 60 are less comfortable using specific services (Gardner *et al.* 2014). In relation to mainstream services, a third of participants across all ages indicated fear about disclosing their sexual orientation and this was highest amongst lesbian women. Similar rates of general health service distrust have been found amongst older lesbians and heterosexual women in a good quality cross-sectional study (June *et al.* 2012), suggesting this may not be unique to non-heterosexuals.

Residential accommodation

Concerns and preferences around residential accommodation have been explored. Older lesbians have reported anticipatory dread about going into mainstream residential care, as they fear their sexuality will be erased due to heteronormative services (McIntyre & McDonald 2012). However, an unclear analytic framework is a limitation to the methodological transparency of this study. In a more clearly reported thematic analysis, which followed published analytic guidelines and provided detail

around this process, older gay men were similarly wary of going into residential care and some expressed preference for LGB facilities (Kushner *et al.* 2013). A survey of older lesbians and gays, limited somewhat by a small sample size of 18, indicated most would not actively desire to move into such facilities, but would be interested in the development of LGB senior residences or assistance to find understanding accommodation (Hamburger 1997). Some older studies reported that the majority of lesbians would prefer lesbian, rather than mixed gay and lesbian housing (Kehoe, 1988, Quam & Whitford 1992). However, a mixed sample of older lesbians and gays mostly wanted to live in a community where sexuality is largely irrelevant and non-heterosexual culture is acknowledged, such as units for same-sex couples (Hamburger 1997). A majority of LGBT older adults felt that traditional nursing homes were not LGBT-friendly (Smith *et al.* 2010), and one fifth of a large sample felt they faced discrimination when seeking housing in traditional retirement communities (Orel 2014), suggesting that this ideal has not yet been reached.

A number of older gay men currently living in residential care reported concerns around being ostracised by other residents and having to hide their sexuality (Stein *et al.* 2010). They also feared being neglected or abused by staff due to being gay, felt alone due to being unable to talk about their lives, partners or grief, and had the greatest anxiety around daily care providers. Suggestions for improved residential care included staff not assuming heterosexuality, appreciating the individual lives residents had lived, promoting acceptance, and training staff to acknowledge gay people and support intimate relationships. This study is unique as it is the only identified study reflecting the views of those in residential care. Similar issues emerged in a novel qualitative project featuring transparently reported interviews and focus groups designed to identify ways in which long-term care providers need to be

responsive to LGB older adults' needs (Jihanian 2013). The identified domains of responsiveness involved the development of knowledge, skills and attitudes for staff. These included awareness of the central importance of partners, avoiding heteronormative language and creating safe environments for LGBT older adults. When these are missing and environments are homophobic or heterosexist, individual resilience has been suggested as a significant factor in coping (Kushner *et al.* 2013).

DISCUSSION

Summary

The studies reviewed have suggested that LGB individuals mostly adjust well to ageing identities, with mediating factors that include acceptance of a bisexual or male homosexual self-identity, and increasing age. Specifically, when gay men and bisexual individuals reported higher levels of discomfort with their sexuality, this was linked with poorer mental health. Self-acceptance appears to be a lifelong process, which may relate to involvement with the LGB community; this involvement appears to differentially impact ageing. For some, being around other non-heterosexuals helped adjustment to ageing, while some gay men chose to distance themselves to maintain notions of masculinity.

Experiences of ageism and financial barriers within the community seem to be challenging for older gay men. This fits with findings that higher LGB community involvement corresponds with increased concern about ageing (Hostetler 2004). However, intergenerational workshops and voluntary work were shown to create cohesion within the LGB community. Intimate friendships and social support in general plays a key role in successful ageing, reducing loneliness and increasing self-esteem. These relationships are important as older lesbians, gays and bisexuals are more likely than not to live alone, and less likely than heterosexuals to be partnered or

garner support from their biological family. 'Families of choice', including friends and neighbours, are often positioned as caregivers, while LGB individuals may adopt these roles for others.

The context in which someone first acknowledges their sexuality appears to be important, as it shapes the discourses available to older people in producing their ageing identities. These disclosures give rise to positions such as 'passing' as heterosexual or open disclosure of sexuality. 'Passing' may be motivated by an attempt to keep safe in stigmatising or discriminatory environments, although doing so may threaten self-identity. This includes caution around sexuality disclosure when accessing health and social services or residential accommodation, which may be perceived as heteronormative or hostile. In these contexts older people make a judgement about responsiveness to non-heterosexuality. Unfortunately, this may mean that needs go unmet in older age, perpetuating health inequalities (Hunt & Minsky 2007). Moreover, there are indications that those who are not "out" have less access to emotional support and maintenance of good mental health is predicted by a higher number of other people knowing one's sexual orientation. Furthermore, those who have come out may have developed psychological resilience that prepares them for the second stigmatised identity they inhabit in older age.

Methodological issues

Control groups

Only one study included a heterosexual control group (Dorfman *et al.*,1995). This is a limitation to the internal validity of the research base as a whole, making it harder to conclude influences are unique to LGB individuals. However, LGB research without control or heterosexual 'comparison' groups is still valuable (Harrison & Riggs 2006), particularly as the aim of the review was to gain understanding about the

psychosocial influences on ageing for LGB people, rather than comparing these to heterosexuals. A number of studies did elucidate shared or divergent influences through making comparisons between age groups, genders or sexual orientation. Some studies included only lesbian and bisexual women, or gay and bisexual men. This means certain psychosocial influences are less understood in relation to gender differences. For example, only qualitative experiences of gay males living in care were identifiable (Stein *et al.* 2010).

Follow-up

No studies included follow-up measures, which is a limitation of the extant literature. It is therefore unclear how psychosocial influences may interact with the ageing process at different points in time. Longitudinal research is considered most useful when investigating relationships with long-term effects (Meltzoff 1998) thus making this an important area for future research.

Quantitative methodologies

Almost half of the studies adopted cross-sectional designs, which are limited in that they cannot infer a causal or reciprocal relationship between LGB identities and the psychosocial influences outlined. However, many of the studies scored well on a quality evaluation tool, with clear objectives, study designs and methodologies, and fair appraisal of the strengths and limitations of results (STROBE 2007). Appropriate statistical analyses and standardised measurement tools were used in most studies, indicating a number of significant relationships. However, measures were self-report which could have introduced respondent bias.

Qualitative methodologies

Qualitative studies adopted a variety of methodologies, including content, narrative and thematic analyses. These studies met Yardley's (2000) quality criteria for

qualitative research as they clearly described the analytic process and presented quotes and themes accordingly. Such high quality studies add depth to understanding of psychosocial influences. However, two studies lacked this quality assurance and presented an unclear analytic process (McIntyre & McDonald 2012, Minnigerode & Adelman 1978). Similarly, the one quasi-experimental study adopted an unclear analytic framework for qualitative outcomes (Galassi 1991).

Sampling

Most studies used non-probability sampling procedures due to recruitment challenges with this population, but purposive sampling incurs bias, including the risk of researcher bias and poor representativeness; this limits the internal and external validity of the findings. Evidence suggests gay males recruited through the LGB community are significantly different to those identified through random sampling as they have lower internalised homophobia and greater social contact (Meyer & Colten 1999). As a result, those who are less connected or do not openly identify as LGB may be absent from the literature. Most studies were conducted in predominately white, Western countries, with only one exception (Kong 2012), which limits generalisability to an extent. However, many of the studies were qualitative so were not intended to be widely generalisable, and given the differing socio-political contexts of various countries, quantitative research is also limited in terms of generalisability.

Research implications

What can be conclusively taken from the literature reviewed is limited due to significant methodological limitations. For example, samples largely consisted of white, self-selected, “out” participants, limiting ecological validity. Furthermore, there may be risks inherent in grouping LGB people into one homogenous category.

This could obscure important differences related to gender, ethnicity or socioeconomic status (Institute of Medicine 2011). However, the scope and range of psychosocial influences identified indicate that future research is warranted. Future studies could adopt controlled population-based sampling methods to access a more diverse population thus increasing internal validity and representativeness. Older adults are becoming more comfortable answering survey questions regarding sexual orientation (Fredriksen-Goldsen & Kim 2014), indicating potential for larger-scale population-based studies.

Other areas for further investigation include qualitative experiences of caregiving and receiving, and experiences of corporeal ageing for lesbian and bisexual females. Additionally, although some studies discussed findings in relation to existing LGB ageing theories, no studies did this in depth or tested theories empirically. It may be useful to assess their validity with upcoming cohorts of older LGB individuals, given the evolving social context within which identities have formed and ageing is experienced. The socio-legal and political context has markedly shifted for LGB individuals over the past few decades; it is important to remain sensitive to the context within which reviewed studies were conducted and acknowledge the impact on results. The earlier articles were historically significant, but may have less relevance in terms of contemporary experiences. Continually updating the evidence base would help establish psychosocial influences on ageing for current older LGB individuals.

Another under-developed area is LGB experiences of cognitive difficulties in older age, where the intersection of LGB orientations and cognitive difficulties, such as dementia, may compound social marginalisation (Westwood 2014). Experiences of cognitive difficulties may be shaped by the other psychosocial influences outlined in the review. For example, discriminatory social environments are theorised to have

a detrimental effect on psychological and cognitive functioning within the context of dementia (Kitwood 1997). Research with these individuals would develop understanding about these experiences and how to maintain good mental health for those with diminishing cognitive abilities (D'Augelli *et al.* 2001).

CONCLUSION

This review has demonstrated that many research studies have helped develop an understanding of the psychosocial influences on gay, lesbian and bisexual ageing. These influences include the challenge of societal stigma and discrimination, and the resilience individuals demonstrate in response to ageing challenges, through optimism and a positive attitude. This includes older LGB people that have lived their lives more openly in a changing social context, yet still experience difficulties related to their sexual orientation. It is important these factors continue to be investigated if services are going to best meet their needs.

RELEVANCE TO CLINICAL PRACTICE

Although socio-legal conditions are improving for older LGB individuals, even the most recent studies indicate that challenges remain (Gardner *et al.* 2014, Grossman *et al.* 2014). Also, having disclosed their sexuality more openly throughout their lives, current and upcoming cohorts may have experienced higher levels of harassment and abuse (Jenkins Morales *et al.* 2014). Such traumatic experiences could have had a negative impact on older LGB individuals' mental health, leading to symptoms of anxiety or post-traumatic stress, which may require specialist psychological intervention (Laugharne *et al.* 2010). However, having experienced these challenges, some older people may have high levels of resilience (Kushner *et al.* 2013; Orel 2004,); nurses in particular are often in roles to help patients draw on this existing resilience during times of emotional and physical challenges. Those who have not

come out may not have had this opportunity, so struggle more in later life (D'Augelli *et al.* 2001). Van Wagenen *et al.* (2013) developed a framework of coping in older age, which could be beneficial in assessing older LGB individuals and determining how best to intervene and enhance their coping ability. Nurses and other healthcare professionals may be ideally positioned to support this population through their work in primary care and social care services.

The majority of participants experienced barriers to health and social services, and felt services did not meet their specific needs (Orel 2014, Smith *et al.* 2010). This may be due to largely heteronormative services (McIntyre & McDonald 2012), where older people are primarily seen as heterosexual or asexual (Ekdawi & Hansen 2010). Such implicit homophobia can mean gay men hide their sexuality if they fear receiving substandard care or being refused service (Neville & Henrickson 2010). Individuals may pass as heterosexual if this is perceived to be safer (Pollner & Rosenfeld 2000), or avoid services altogether, which may perpetuate health disparities between heterosexuals and non-heterosexuals (Fredriksen-Goldsen *et al.* 2013).

Training could improve understanding around LGB issues in mainstream health services, as older people may be less likely to access LGB-specific services (Jenkins Morales *et al.* 2014). Research findings indicate care staff may be unsupportive or unprepared to provide services to LGB older people (Neville *et al.* 2015); nurses may have an important role in training organisations to provide respectful and culturally appropriate services. This includes: the importance of partnerships and engaging with families of choice, being aware of misconceptions and biases, and developing awareness of resources available to older LGB people (Lim *et al.* 2013).

Furthermore, nurses could address LGB healthcare equality and stigma at a societal level through campaigning and inclusive nursing education and practice. Also,

evidence suggests those without partners or contact with relatives are a particularly vulnerable population that may lack emotional support and require more intensive help (Grossman *et al.* 2000). Furthermore, it is important health and social services gather data regarding sexual orientation; this would send a message of acceptance and inclusivity, and establish population demographics. Other ways to promote tolerance would be through gay-friendly imagery to make aged care environments more welcoming or incorporating LGB perspectives into service planning.

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Table 1. *Inclusion and exclusion criteria*

Inclusion criteria	Exclusion criteria
English language	Case studies
Peer-reviewed journal	Majority of participants were
Participants at least 60 years old	transgender
Participants identifying as lesbian, gay or bisexual	HIV/AIDs focus
Presents original research findings	

Figure 1. *PRISMA flowchart* (Liberati *et al.* 2009)

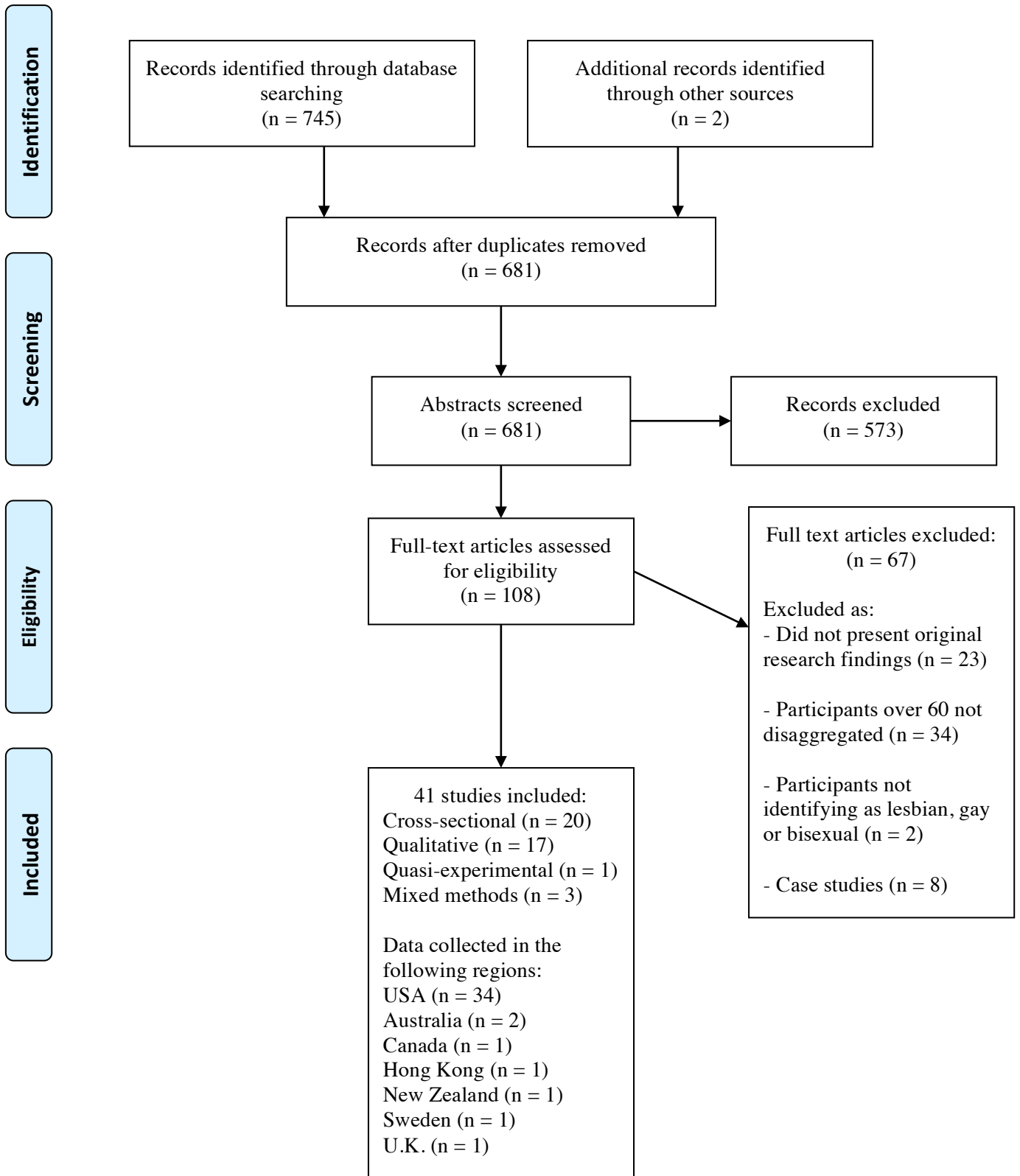


Table 2. *Main features of the reviewed studies*

Author/Date	Country	Sample	Gender/ Sexual Orientation (SO)	Methodology and measures	Main results
Kelly (1977)	USA	N=30 (of 241 total) Age: 65+	Gender: Male SO: Gay	Mixed-methods, investigator- designed questionnaires and interviews with content analysis.	Social stereotypes of older gay men as odd, closeted and disconnected from the LGB community are inaccurate. Older gay men were sexually satisfied.
Minnigerode & Adelman (1978)	USA	N=11 Age: 60- 77	Gender: Female (45%) and male (55%) SO: Lesbian and gay	Qualitative interviews, unclear analytic framework.	Self-acceptance may be a life-long struggle for older gay men and lesbians. Gay men evaluated body changes negatively more often than lesbians.
Kehoe (1986)	USA	N=50 Age: 65- 85	Gender: Female SO: Lesbian (86%) and bisexual (14%)	Cross-sectional, investigator- designed questionnaire.	Older lesbians were mentally and physically healthy, coping with ageing. 44 of the respondents considered themselves well adjusted to ageing.
Kehoe (1988)	USA	N=100 Age: 60- 86	Gender: Female SO: Lesbian (91%) and bisexual (9%)	Cross-sectional, investigator- designed questionnaire, including the Life Satisfaction Inventory.	Majority of older lesbians were in good or excellent health, felt positive about ageing and their lesbian identity. 86% scored in middle or top range on a measure of adjustment to ageing. Sex was less important after the age of 60 and 43% were in relationships. A sub- sample of women over 75 had no less interest in sex than those who were younger. 61% of lesbians had exclusively lesbian female close friendships.

Pope & Schulz (1990)	USA	N=21 (24% of total) Age: 60+	Gender: Male SO: Gay	Cross sectional, investigator-designed questionnaire.	83% of both men over 60 and those between 50 and 59 considered themselves sexually active. Overall, 38% of men aged 60 or over had sex once a week. Older gay males maintain both an interest in sex and the ability to sexually function.
Adelman (1991)	USA	N=52 Age: 60+	Gender: Female (48%) and male (52%) SO: Lesbian and gay	Mixed methods, structured interviews and questionnaires, including the Life Satisfaction Index, Symptoms Index and Self-criticism Scale.	Higher satisfaction with being gay in later life was related to higher life satisfaction and lower self-criticism.
Galassi (1991)	USA	N=15 Age: 60+	Gender: Female and male (Gender % unstated) SO: Lesbian and gay	Quasi-experimental. Investigator-designed questionnaires and unclear analysis.	An intergenerational group workshop increased pride and wellbeing. The majority had fears about coming out to services.
Quam & Whitford (1992)	USA	N=31 (38.8% of total) Age: 60+	Gender: Female (67.7%) and male (32.3%) SO: Lesbian and gay	Cross-sectional, investigator-designed questionnaire.	Older lesbians and gay men were mostly accepting of the ageing process, scored highly on life satisfaction and participated in some form of lesbian or gay specific community organisation.
Dorfman et al. (1995)	USA	N=56 (52 heterosexuals in control group) Age: 60-93	Gender: Female (57%) and male (43%) SO: Lesbian and gay	Cross-sectional, Questionnaire including the Geriatric Depression Scale and Lubben Social Network Scale.	No differences found on depression scores between homosexuals and heterosexuals. Lower depression associated with higher social support.
Hamburger (1997)	USA	N=9 Age: 60+	Gender: Female and male SO: Lesbian and gay	Cross-sectional, investigator-designed questionnaire.	The majority of respondents wanted to live in a community where sexual preference is irrelevant and non-heterosexual culture is

planned for.

Whitford (1997)	USA	N=21 (of 41 total) Age: 60+	Gender: Male SO: Gay	Cross-sectional, investigator-designed questionnaire.	Gay men over 60 were more accepting of the ageing process than those between 50 and 60. Acceptance related to involvement in gay social groups.
Rosenfeld (1999)	USA	N=37 Age: 65+	Gender: Female (54%) and male (46%) SO: Lesbian and gay	Qualitative, semi-structured interviews analysed with phenomenological maps.	Social context at time of gay identity development affected discourses available when constructing a gay identity. This could lead to inter-cohort differences related to the enactment of homosexuality in older age.
Grossman, D'Augelli & Hershberger (2000)	USA and Canada	N=416 Age: 60-91	Gender: Female (29%) and male (71%) SO: Lesbian, gay and bisexual	Cross-sectional. Battery of questionnaires including a modified version of the Support Network Survey, the UCLA Loneliness Scale, the Alcohol Use Disorders Identification Test and the Drug Abuse Screening Test.	Older people had around 6 people in their support networks. These were predominately close friends, but also included partners, siblings or relatives that provided emotional support.
Pollner & Rosenfeld (2000)	USA	N=49 Age: 65-89	Gender: Female (49%) and male (51%) SO: Lesbian and gay	Qualitative, semi-structured interviews with an unclear analysis.	Older people related differently to the heterosexual 'other'. Heterosexuals were found to be portrayed as threatened by older gays and lesbians. These responses impacted their sense of self and identity.

D'Augelli & Grossman (2001)	USA and Canada	N=416 Age: 60-91	Gender: Female (29%) and male (71%) SO: Lesbian, gay and bisexual	Cross-sectional. Battery of questionnaires including a modified version of the Revised Homosexuality Attitude Inventory and an investigator-designed measure of sexual orientation victimisation.	65% had experienced at least one type of victimisation (verbal abuse, threat of violence, sexual assault, physically attacked, threat of disclosure, discrimination at work or in housing). Lifetime rates of victimisation included 29% threatened with violence, 16% physically attacked and 7% sexually assaulted. More suicide attempts were reported amongst those who had been physically attacked. 44% of gay men had been physically assaulted compared to 16% of the lesbian respondents.
D'Augelli, Grossman, Hershberger & O'Connell (2001)	USA and Canada	N=416 Age: 60-91	Gender: Female (29%) and male (71%) SO: Lesbian, gay and bisexual	Cross-sectional. Battery of questionnaires including investigator-designed measures of older adult mental health, physical health and cognitive functioning.	84% of the sample reported their mental health was good or excellent. Correlates of better mental health included higher self-esteem, less loneliness and lower internalised homophobia.
Grossman, D'Augelli & O'Connell (2001)	USA and Canada	N=416 Age: 60-91	Gender: Female (29%) and male (71%) SO: Lesbian, gay and bisexual	Cross-sectional. Battery of questionnaires including the Rosenberg Self-Esteem Scale.	Most older lesbian, gay and bisexual older adults reported fairly high self-esteem, with no differences due to gender or sexual orientation.
Orel (2004)	USA	N=26 Age: 65-84	Gender: Female (62%) and male (38%) SO: Lesbian, gay and bisexual	Qualitative, semi-structured focus groups with content analysis.	Older lesbians, gays and bisexuals were well prepared for the psychological challenges of ageing. 50% had accessed mental health services

Drumm (2005)	USA	N=9-12 (varies each group) Age: 60-80	Gender: Female SO: Lesbian	Qualitative analysis of a group using a Record of Service.	A social support group was useful for older lesbians in terms of empowerment, fostering a sense of universality and developing their relationship skills.
Hall & Fine (2005)	USA	N=2 Age: 73-85	Gender: Female SO: Lesbian	Qualitative, semi-structured interviews with narrative analysis.	Having lived lives of activism, two older lesbians were able to create positive environments that transcended traditional categories (e.g. ethnicity, class, gender) when ageing.
Clover (2006)	UK	N=10 Age: 60-75	Gender: Male SO: Gay	Qualitative, semi-structured interviews, 'successive approximation' analysis.	Previous experiences with homophobic healthcare staff and current heterosexist practices meant that health needs went unmet.
Drasin et al. (2008)	USA	N=144 (of 2402 total) Age: 60+	Gender: Male SO: Gay	Cross sectional, investigator-designed questionnaire.	Compared with an older cohort, younger gay men were reaching psychological and social milestones, such as identifying as gay and taking part in the gay community, at earlier and earlier ages.
Hughes (2009)	Australia	N=23 (6.2% of total participants) Age: 66+	Gender: Female and male (Gender % unclear) SO: Lesbian and gay	Cross-sectional, investigator-designed questionnaire.	Older lesbian, gay and bisexual people were more concerned about cognitive decline than a younger cohort. Across all age groups, gay men expressed higher concerns about body image as they age than lesbians.
Rosenfeld (2009)	USA	N=28 Age: 64-89	Gender: Female (50%) and male (50%) SO: Lesbian and gay	Qualitative, semi-structured interviews with inductive grounded theory analysis.	Older lesbians and gays employed heteronormative strategies, such as gender conforming, in the interests of personal safety, respectability and collective gain.

Smith, McCaslin, Chang, Martinez & McGrew (2010)	USA	N=38 Age: 60+	Gender: Female (39.5%), male (55.3%) and intersex (2.6%) SO: Lesbian, gay and bisexual	Cross-sectional, investigator-designed questionnaire.	Many felt that senior services could be unfriendly towards lesbian, gay and bisexual older adults. Areas of greatest unmet needs for these individuals were LGBT-friendly legal advice, social events, grief counselling, social workers and assisted living.
Stein, Beckerman & Sherman (2010)	USA	N=12 (community focus groups) Age: 60-84 N=4 (care setting focus group) Age: 64-88	Gender: Female (33%) and male (67%) SO: Lesbian and gay Gender: Male SO: Gay	Qualitative, semi-structured focus groups with thematic analysis.	Participants reported fears around accessing care, including rejection from healthcare providers and having to hide their sexuality in residential care. Older gay men in care experienced fears around open disclosure, so may have hidden their sexuality.
Slevin & Linneman (2010)	USA	N=10 Age: 60-85	Gender: Male SO: Gay	Qualitative, semi-structured interviews with 'narrative enquiry' analysis.	Older gay men drew on resources to counteract the stigma of corporeal ageing, at a time when masculinity is compromised.
Jonson & Siverskog (2012)	Sweden	N=276 Age: 60-81	Gender: Female (32%), male (59%) and transgender (9%) SO: Lesbian, gay, bisexual and queer	Quantitative content analysis and qualitative content analysis of online dating profiles.	Dual content analyses revealed how self-mocking comments about bodily appearance can serve to give older age problematic status, or display marketable characteristics of older people.
June, Segal, Klebe & Watts (2012)	USA	N=30 Age: 60-81	Gender: Female SO: Lesbian	Cross-sectional. Battery of questionnaires including the End-of-Life Care	Both older and younger lesbians had positive beliefs about holistic and alternative medicine.

				Questionnaire, the Health Care System Distrust Scale and the Holistic Complementary and Alternative Medicine Questionnaire.	
Kong (2012)	Hong Kong	N=14 Age: 60+	Gender: Male SO: Gay	Qualitative. Analysis of oral histories based on a 'post-structuralist power-resistance paradigm'.	A changing sociocultural context shaped how older men could use LGB spaces. They worked to resist the unwelcoming 'homonormativity' of contemporary queer culture, e.g. through LGB voluntary work or 'quitting' the scene.
McIntyre and McDonald (2012)	Canada	N=Unclear Age: 60-84	Gender: Female SO: Lesbian	"Qualitative research", methodology unclear.	Sexuality was often relegated to the 'private realm' for older lesbians, particularly in settings governed by heteronormative ideals.
Jihanian (2013)	USA	N=3 (interviews) Age: 64-74 N=4 (focus groups) Age: 61-79	Gender: Female and male (Gender % unclear) SO: Lesbian and gay Gender: All male SO: Gay	Qualitative, semi-structured focus groups and interviews with 'standpoint theory' analysis.	15 domains of responsiveness were identified, relating to awareness of partner relationships, preferred gender expression, diversity, knowledge of HIV/AIDs, non-stigmatising HIV/AIDs, understanding of social challenges, the impact of religion, alienating language, openness, unconditional caring, inclusive services, gay-friendly literature and creating safe environments.
Kushner, Neville & Adams (2013)	New Zealand	N=12 Age: 65-81	Gender: Male SO: Gay	Qualitative, semi-structured interviews with thematic analysis.	Older men had ageing concerns relating to homophobia and accessing care, and being with others, as social support was seen as central to successful

ageing.

Lyons, Pitts & Grierson (2013)	Australia	N=86 (40-49) N=523 (50-59, N=231) Age: 60+	Gender: Male SO: Gay	Cross-sectional, investigator-designed questionnaire.	Men over 60 years old more likely to be poorer and live alone than those in their 40s and 50s. However, they were just as likely to be in a relationship and drew greater support from friendships. Reports of discrimination dropped between those in their 40s, 50 and 60s ($\chi^2(2, N = 838) = 11.55, p < .01$).
Van Wagenen, Driskell & Bradford (2013)	USA	N=22 Age: 60-80	Gender: Female (50%) and male (50%) SO: Lesbian, gay and bisexual.	Qualitative, semi-structured interviews with grounded theory analysis.	Four levels of coping with ageing amongst older LGBT adults were reported. Overall, most participants demonstrated resilience in the face of ageing challenges. 16 participants were on the “surviving and thriving” and “working at it” gradations of coping. 6 participants were “ailing”.
Croghan, Moone, Rajean & Olsen (2014)	USA	N=123 (24.8% of total) Age: 65+	Gender: Female and male (Gender % unclear) SO: Lesbian, gay and bisexual	Cross-sectional, investigator-designed questionnaire.	Compared to the general population, these individuals were less likely to have traditional sources of support, i.e. a family member, and more likely to care for someone not related to them. Similar rates of caregiving were reported amongst those between 65 and 74 and those over 75, of 22.1% and 23.8% respectively. For all participants, 74% would rely on non-biological kin for support.

Gardner, de Vries & Mockus (2014)	USA	N=281 (221 < 60 years old) Age: 60+	Gender: Female and male (Gender % unclear) SO: Lesbian and gay	Cross-sectional, investigator-designed questionnaire.	There was a trend for those under 60 to use LGBT-specific services more regularly than older people. Across all ages, many respondents reported their sexuality would make them uncomfortable accessing services and they may fear open disclosure.
Grossman et al. (2014)	USA	N=113 Age: 60-88	Gender: Female (33%) and male (67%) SO: Lesbian, gay and bisexual	Cross-sectional, investigator-designed questionnaire.	Almost a quarter of the participants had experienced at least one type of harm from a caregiver (physical harm, psychological harm, verbal harm, sexual harm, financial exploitation, or neglect). 25.7% knew other LGB older adults that had experienced at least one type of harm from a caregiver. 26% rated their ability to think clearly and concentrate as having decreased over the preceding five years.
Jenkins Morales, King, Hiler, Coopwood & Wayland (2014)	USA	N=33 (118 < 65 years old) Age: 65+	Gender: Female (49%), male (45%), transgender (4%) and other (2%) SO: Lesbian, gay, bisexual and other.	Cross-sectional. Battery of questionnaires including the Patient Health Questionnaire-2 and the Revised UCLA Loneliness Scale.	More older women than men were in relationships, but these differences were not significant. 41% of over 65's were in relationships and were less likely to be lonely. Older people felt there were not enough health professionals with understanding of their specific issues.
Orel (2014)	USA			(Mixed methods in two parts)	
		Part one: N=26 (focus groups) Age: 65-84	Gender: Female (62%) and male (38%) SO: Lesbian,	Part one - Semi-structured focus groups with content analysis	Older adults experienced stigma and discrimination based on their sexuality and age. Seven areas of concern were: healthcare, legal,

			gay and bisexual		institutional, spiritual, family, mental health and social.
		Part two: N=1150 (surveys) Age: 64- 88	Gender: Female (64%) and male (36%) SO: Lesbian, gay and bisexual	Part two - cross-sectional investigator- designed questionnaires.	Older adults anticipated and experienced discrimination when using senior social care services and health care. Over half felt their needs went unmet.
Putney (2014)	USA	N=12 Age: 65- 80	Gender: Female SO: Lesbian	Qualitative, semi-structured interviews with grounded theory analysis.	Pets provided companionship relationships. These involved love and caregiving, which attenuated loneliness, encouraged personal growth, fostered self- acceptance and gave purpose.