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Sexual Stigma and Mental Health of LGB Older Adults: A Systematic Scoping Review

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Abstract

Introduction Studies that examine the mental health of gay, lesbian, and bisexual (LGB) older adults have increased significantly over the last two decades, evidencing sexual stigma as one of the main factors associated with poorer mental health in this population. However, scientific evidence linking mental health and sexual stigma in older adults has not been systematically reviewed.

Methods We conducted a systematic scoping review investigating the relationships between sexual stigma and mental health in LGB older adults aged 60 and over. EBSCO Host, PubMed, Web of Science, Scopus, and Scielo were used to search for peer reviewed studies following PRISMA guidelines and 17 studies were included. The research covered studies between 2000 and 2020 and data collection was carried out between 2020 and 2021.

Results Sexual stigma showed a strong relationship with mental health in LGB older adults, being mainly associated with worse mental health outcomes, such as anxious and depressive symptoms, psychological distress, and substance abuse. Hypervigilance, invisibility, feeling socially rejected, concealment of sexual orientation, and internal conflicts were suggested among the main mediator/moderator factors between sexual stigma(s) and the older LGB mental health indicators. The findings suggest that sexual stigma affects older LGB people throughout their life course cumulatively, by decreasing their quality of life and access to health care. Yet, LGB older adults have developed resilience and adaptive strategies to manage sexual stigma.

Conclusions and Policy Implications Sexual stigma has a significant relationship with worse levels of mental health in LGB older adults, affecting their well-being. It is important that future studies address oldest old LGB individuals (e.g., aged 80 or over), particularly evaluating how they manage sexual stigma. Further, there is an urgent need for research that evaluates the positive determinants of mental health in LGB older adults, such as well-being and successful aging, as well the role of the internet and social media in stigmatizing older LGB people.

Keywords Older adults · Sexual minorities · Overview · Psychological adjustment · Psychological distress · Sexual prejudice

Introduction

Currently, and for the first time in history, most people can expect to live beyond the age of 60 (WHO, 2015), with one in six people across the world expected to be older adult by 2050 (UN, 2019). These rapid and significant changes in world demographics have brought to the forefront the need for greater longevity to be accompanied by health and quality of life (UN, 2019; von Humboldt et al., 2022; WHO, 2015). The older population experiences increased vulnerability for chronic diseases, cardiovascular diseases, and senses diseases (e.g., sensory loss or limitations in physical mobility) but also in recent decades there has been a growing and relevant prevalence of mental illness (WHO, 2015, 2017). As for the latter, more than 15% of people aged 60 and over have been diagnosed with a mental disorder (WHO, 2017).

Sexual minority older adults (Lesbian, Gay, and Bisexual; LGB) seem to have lower levels of mental health when compared to heterosexual older adults according to data from several continents (e.g., Fredriksen-Goldsen et al., 2013a; Stonewall, 2011). One of the main associated factors to this health disparity is the continued exposure to several

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sources of sexual stigma (Meyer, 2003; Ribeiro-Gonçalves et al., 2023a, b). Stigma refers to the widespread discredit of characteristics of an identity that is devalued in a given social context. Stigma can impact people directly through confirmation of expectations of social rejection, automatic activation of stereotypes, or discrimination and indirectly through threats to one's identity and integrity (Major & O'Brien, 2005). Particularly, sexual stigma consists of a set of derogatory beliefs, negative social expectations, and/or pejorative behavior toward people with sexual minority identities (Herek, 2000, 2009). Many LGB older adults have living experiences of verbal and/or physical abuse over the course of their lives from sexual stigma in less affirming historical contexts (D'Augelli & Grossman, 2001; Hawthorne et al., 2018). All these victimization experiences rooted in sexual stigma are associated with increased risk for mental health problems, including depression symptoms, anxiety symptoms, and substance abuse (Hawthorne et al., 2018; Meyer, 2003). Further, many older LGB have reported rejection by their families of origin and social support networks when disclosing their sexual orientation (Hawthorne et al., 2018; Stonewall, 2011).

Recent estimates indicate that between 4.5 and 11% of older adults self-identify as sexual minorities (Gates, 2011; Newport, 2018). Further, with the increase in average life expectancy, it is estimated that this group continue to increase (Gates, 2011; WHO, 2015). To understand the specific needs of this population, it is essential to examine the psychosocial context throughout their life course (Fredriksen-Goldsen & Muraco, 2010). Studies with LGB older adults in western countries underwent times of great invisibility,[1] in contexts dominated by conservatism, stigmatization, discrimination, and oppression, and spending most of their lives hiding their sexual orientation, often due to fear of sexual stigma (Fredriksen-Goldsen & Muraco, 2010; King & Richardson, 2017; Ribeiro-Gonçalves et al., 2023a).

Herek (2009) distinguishes at least three manifestations of sexual stigma: (1) Self-stigma, conceptualized as the acceptance/internalization of sexual stigma by sexual minority individuals (also known as internalized homophobia or internalized sexual stigma); (2) Felt or perceived stigma, as the expectation of imminent stigmatization based on previous experiences of victimization and the perception of continued threat; and (3) Enacted stigma, as the expression of prejudice toward sexual minority individuals in the form of rejection, direct discrimination/victimization or violence. Among these, enacted stigma has been found to be more closely associated with aggressive and violent attitudes and actions toward sexual minorities, whereas felt stigma has been found associated to the individual's judgment on the likelihood that stigma may occur in different situations and circumstances. The latter is based on the emotion of fear and on beliefs of social intolerance toward sexual minorities (Herek, 2000, 2009; Major & O'Brien, 2005). Lastly, self-stigma refers to a more intrinsic dimension, in the sense of self-rejection of identity, and occurs when the self-concept of stigmatized people coincides with the stigmatizing responses of society (Herek, 2009; Major & O'Brien, 2005). This review will focus on these three major stigma factors, as together they capture the different facets of sexual stigma affecting older LGB people, and it will systematically examine how sexual stigma is associated with the mental health of sexual minority older adults.

The Minority Stress Model (Meyer, 2003) is also among the main theoretical perspectives that address the relationship between sexual stigma and health. This model proposes that mental health inequalities that penalize sexual minorities are associated with a set of sexual stigma factors throughout the life course (Meyer, 2003). The Minority Stress Model indicates that the minority sexual orientation/identity grants to the people a "minority status," being that the specific type of psychosocial stressors that affect this population is designated "minority stress." This stress tends to occur through two processes and manifestations of stigma: (1) distal minority stress processes, which are related to objective episodes of prejudice and discrimination directed at a minority group/person (e.g., violence, discrimination events); and (2) proximal minority stress processes, which are a subjective phenomenon and dependent on the individual's perception/evaluation of the stigma experience (e.g., internalized homophobia, concealment of sexual orientation, expectations of rejection; Meyer, 2003).

Nevertheless, the Minority Stress Model also postulates that sexual minorities can activate processes that help them deal with sexual stigma, thus serving as protective factors for their mental health (e.g., social support; Meyer, 2003). Further, this model recently highlights that individual and community resilience can be important resources when activating these coping processes, and places resilience as an inherent factor in the stress dynamics of sexual minorities, particularly to managing their mental health (Meyer, 2015). The theoretical concept of intersectional stigma also becomes a fundamental element. Intersectional stigma highlights that the interaction of several social factors that define a person can cumulatively correspond to the coexistence of several systems of oppression and discrimination, jointly affecting the person and creating potential inequalities (de Vries, 2014; Sievwright et al., 2022). Namely, LGB older people can experience at least a double discrimination, due to their age (e.g., ageism) and because their minority identify (e.g., sexual stigma). These social factors may also be

[1] In this review, invisibility is presented as a broader construct than the concealment of sexual orientation, including other phenomena such as social indifference towards the LGB population and the marginalization of LGB people (Mitchell et al., 2023).

associated with other characteristics (e.g., gender, ethnicity), and other oppressive systems associated with them. The Minority Stress Model and intersectional stigma help us to understand how mental health is experienced by older sexual minorities.

The current literature on LGB health suggests that older sexual minorities can present higher levels of sexual stigma and lower levels of mental health indicators (Fredriksen-Goldsen et al. 2011, 2013a, b; King & Richardson, 2017). Higher levels of self-stigma have been found to be associated with higher levels of psychological distress and substance use, and lower levels of life satisfaction (Fredriksen-Goldsen et al., 2013a, b; Lick et al., 2013; Wight et al., 2015). Higher levels of enacted stigma are also associated with indicators of poorer physical health, stress, isolation, and lower levels of general mental health (Alba et al., 2019; Fredriksen-Goldsen et al., 2011; Lick et al., 2013). Further, despite there being no systematic reviews that synthesize this data in recent decades, the prevalence of all these manifestations of sexual stigma seems to be high. It is estimated that at least 76% of older American LGB have been victims of sexual stigma three or more times, which was significantly associated with poor mental health indicators (Fredriksen-Goldsen et al., 2013a, b). In addition to age, it is important to highlight that the experience of sexual stigma is clearly linked to generational effects that marked the development of these LGB older people. For example, previous studies highlight that older generations tend to hide their sexual orientation more and have weaker community connections than younger generations; therefore, the historical and psychosocial events (e.g., wars, dictatorships, HIV/AIDS crisis, moral panic about homosexuality) that marked this older generation are essential as they influence and mark these generational differences (Costa et al., 2022; Fredriksen-Goldsen et al., 2022).

LGB older adults' mental health has traditionally been examined from a perspective centered on negative symptoms (e.g., depression symptoms), with links between these conditions and different manifestations of sexual stigma, especially self-stigma (Grabovac et al., 2019; McParland & Camic, 2016). However, in the last decade, a growing body of literature has been focusing on positive indicators thus providing a more comprehensive assessment of the overall mental health status of older LGB. This research have allowed us to understand the resources that this population has developed to manage sexual stigma (Grabovac et al., 2019). Studies have shown that well-being, life satisfaction, happiness, and quality of life are key determinants of overall LGB older adults mental health (Fredriksen-Goldsen et al., 2011; Grabovac et al., 2019). Further, these indicators have been found to be highly and negatively associated with different manifestations of sexual stigma (Fredriksen-Goldsen et al., 2011, 2013a, b). In this sense, the World Health Organization (WHO, 2013) purports that mental health conditions are defined as suffering, disability, or morbidity due to mental, neurological, and substance use disorders. Particularly, the WHO highlights the need to assess mental health beyond the absence or presence of disease, including indicators of well-being, satisfaction, and quality of life, more so than diagnosed health conditions; this definition includes mental health and behavioral health indicators. Thus, given the recent advances in the literature and the WHO's definition, our review will consider both positive and negative mental health indicators.

Previous Reviews on Sexual Stigma and Mental Health of LGB Older Adults

Some previous reviews have addressed the relationship between psychosocial indicators and the aging process of sexual minorities, including sexual stigma (McParland & Camic, 2016; Zelle & Arms, 2015). Further, other reviews have assessed the association between sexual identity-related inequalities and mental health indicators, such as life satisfaction and suicide attempts in older adults in the context of care (Kneale et al., 2020, 2021). However, despite research on the association between different manifestations of sexual stigma and LGB older adults' mental health having increased significantly over the last few decades, no review studies have systematically examined the evidence produced.

Cruikshank's classic review (1991) was one of the first to describe how sexual stigma interacts with aging and mental health, highlighting the methodological limitations, such as reduced samples (e.g., the vast majority of studies with sample sizes less than 50 people) and/or samples largely focused on specific subsets of the LGB community (e.g., disproportionately centered on gay men or lesbian women). Subsequent reviews sought to understand the association between sexual stigma and adjustment of older sexual minority to aging changes (Haber, 2009), and the association between sexual stigma and the social life and health of older gay men compared to older heterosexual men (Kean, 2006), but did not address mental health indicators. More recently, Fredriksen-Goldsen and Muraco (2010) conducted one of the largest narrative reviews ever made, which included 58 studies over 25 years of empirical evidence. Despite that, this review focused on general and diverse psychosocial factors (e.g., psychosocial adjustment, social support) and not specifically on health variables (Fredriksen-Goldsen & Muraco, 2010). Further, other subsequent reviews have addressed the relationship between sexual stigma and mental health, although the main focus being on themes of health care, such as managing aging in the context of health care, access to health care, inequalities in health care, or more general reviews of research issues relevant to LGB aging (Fredriksen-Goldsen et al. 2019a, b; Kneale et al., 2020; Lecompte et al., 2020). According to McParland and Camic systematic review (2016), most of these reviews reported unclear selection criteria (e.g., missing inclusion or exclusion

criteria) and the description of the search strategy is oftentimes missing. One of the most important limitations identified in these reviews pertains to how older age is defined, with most studies defining this population as those over 40 years old (McParland & Camic, 2016) or over 50 years old (e.g., Flatt et al., 2018). For the purposes of this review, older adult population will include those aged 60 or more. This criterion is supported by international standards (e.g., UN, 2015) as well as psychosocial development models (Papalia et al., 2008).

None of the reviews previously indicated addresses the specific role of sexual stigma in the lives of LGB older people. In fact, the closest reviews address "psychosocial factors" in a much broader way (e.g., McParland & Camic, 2016), despite we already have clear indicators in the literature that shown the necessity to evaluate with particular attention the relationship of sexual stigma and mental health of LGB people (Meyer, 2003). Further, the last decade seems to show a clear growth in literature produced in the LGB aging field, justifying a re-updating of knowledge in the area. Thus, considering the invisibility and specific needs of older LGB people, this systematic scoping review addresses the relationship between sexual stigma (self-stigma, felt stigma, and enacted stigma) and mental health in older LGB people through both negative (e.g., depression) and positive (e.g., well-being) symptoms.

Aim

The present systematic scoping review aimed at:

- Understanding how and which factors of sexual stigma are associated to the mental health of sexual minority older adults;
- Summarize the empirical evidence in the field of sexual minority aging.

This systematic scoping review's research question was: "what is the relationship between sexual stigma (self-stigma, enacted stigma, and felt stigma) and mental health of LGB older adults, through negative (e.g., depression) and positive (e.g., well-being) symptoms?". Notably, while transgender people also experience stigma sometimes related to their sexual orientation (Hughto et al., 2015), the focus of this review was the cisgender population due to a lack of studies on transgender older adults.

Method

Search Strategies

A comprehensive search of the relevant literature was undertaken using the electronic databases EBSCO Host (Psycinfo and Psycarticles), PubMed, Web of Science, Scopus, and Scielo. In addition, ResearchGate, Google Scholar, reference lists, and publications of identified authors were also inspected. The search broad-based key-terms was as follows: [Aging *or* old* *or* senior *or* elder* *or* gerontol* (TI/ABS)] AND [sexual minorit* *or* homosexual* *or* bisexual* *or* sexual identity *or* sexual orientation *or* non-heterosexual *or* lesbian *or* gay (TI/ABS)] AND [stigma *or* homophobia *or* self-stigma *or* felt stigma *or* homonegativity *or* heterosexism (TI/ABS)].[2] Considering the scarcity of studies on sexual stigma and mental health in sexual minority older adults, we decided not to include in the based key-terms a research key targeting the variable mental health so that were able to include studies that examined different and/or specific indicators of mental health (e.g., depression, drug use). Finally, the entire data collection process, from implementing the search strategy to coding and synthesizing the studies, took place between November 2020 and November 2021.

Inclusion/Exclusion Criteria

The five cumulative inclusion criteria were (1) original empirical studies, (2) older people aged 60 and over, (3) sexual minorities—LGB, (4) addressing sexual stigma, and (5) mental health indicators as outcomes. Regarding search limiters, studies had to be published in peer-reviewed scientific journals between January 2000 and October 2020, in English, Portuguese, or Spanish. All authors are fluent in all three languages, facilitating research and review of articles. Exclusion criteria included (1) studies that reported non-original empirical data (e.g., literature reviews), (2) case studies, (3) clinical samples in institutional contexts and/or with chronic physical diseases (e.g., cancer, HIV), (4) multigenerational studies (in which younger generations were included and data from the older population—60 + years old—could not be isolated), (5) studies exclusively with caregivers, and (6) studies with older people with neurological disorders (e.g., dementias). Studies where the primary results or the population referred exclusively to a trans and/or queer sample were also excluded. The decision to exclude studies with transgender population pertains to the fact that the stigma experienced by these individuals differs from that

[2] Search key in Spanish: [Envejecimiento or viej* or senior or adultos mayores or ancian* or mayor or gerontol* (TI/ABS)] AND [minoria sexual* or homosexual* or bisexual* or identidad sexual or orientacion sexual or no heterosexual or lesbiana or gay (TI/ABS)] AND [estigma or homofobia or auto estigma or estigma sexual internalizado or estigma sentido or homonegatividad or heterosexismo (TI/ABS)]; Search key in Portuguese: [Envelhecimento or idoso or senior* or longevid* or gerontol* (TI/ABS)] AND [minoria sexual* or homossexual* or bissexual* or identidade sexual or orientação sexual or não heterosexual or lesbica or gay (TI/ABS)] AND [estigm* or homofobia or auto estigma or estigma sexual internalizado or estigma sentido or homonegatividade or heterossexismo (TI/ABS)].

perceived by cisgender sexual minorities. In this population, the stigma focuses mainly on their gender identity or gender expression, and not their sexual orientation; recent reviews have already been done on this topic (e.g., Hughto et al., 2015). This review included published original quantitative and qualitative research.

All systematic searches followed PRISMA guidelines (Liberati et al., 2009; Moher et al., 2009), as described in the following flowchart (Fig. 1). The articles researched were derived from all outcomes for which data were sought described in the research strategy, and only those that cumulatively and strictly followed the pre-established inclusion and exclusion criteria were included. This evaluation was carried out for each article by two reviewers working independently and using Mendeley software. After these evaluations, a meeting was held with the entire team to make decisions to include or exclude articles in which some doubts remained. The same two reviewers, independently, carried out a short assessment of the risks of bias in all studies, adjusting some of the criteria of the CASP Checklists (CASP, 2023), both for qualitative and quantitative studies, thus mainly verifying risks of selection and reporting biases in the vast majority of studies. Lastly, as this was a mixed review and with a small number of studies, no sensitivity or statistical heterogeneity analyzes were carried out. A brief description of all the articles in this review is presented in Table 1.

Coding of Studies

A coding scheme was developed to systematize the information obtained from the included studies. Based on the theoretical literature on the three main manifestations of sexual stigma proposed by Herek (2009), two researchers

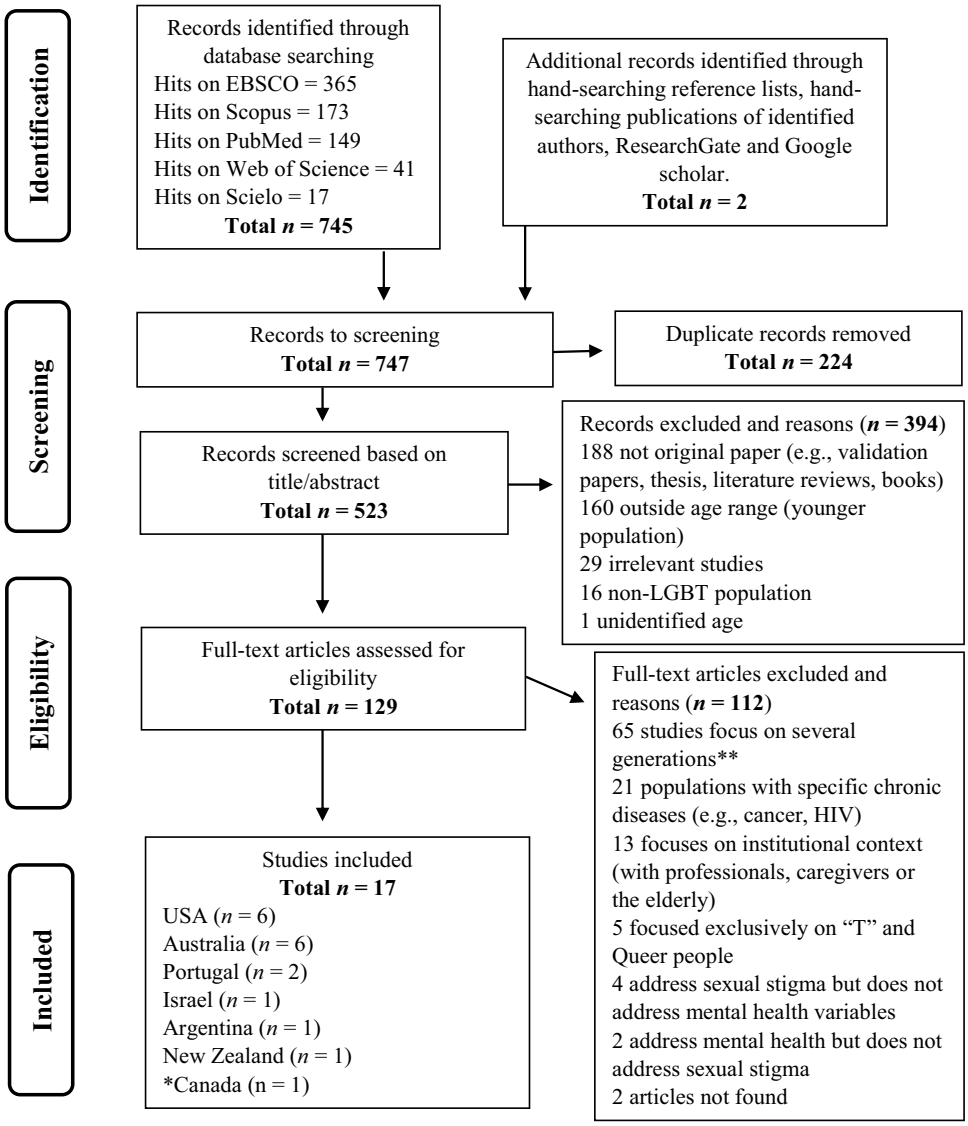

Fig. 1 PRISMA flow diagram. *Some studies were done partially between Canada and United States; the total number of studies is 17 *In these articles, data relating to the older people could not be isolated to the remaining generations

Table 1 Summary of studies included

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
Barrett et al., 2015	Australia	***N*** = 11 **SO:** Lesbian (54.5%) and Gay (45.5%) **Age:** 65–79 (M = 70) **MA**: Qualitative and Cross-sectional	Felt-stigma and Enacted Stigma	Anxiety and Depression Symptoms	To document older lesbian and gay people's experiences of discrimination, particularly with regard to its impact on their relationships with partners, friends and family, and to understand how these experiences are implicated in higher than average rates of depression and anxiety	Devastating and violent impact of sexual stigma on mental health and relationships. Including rejection/exclusion, verbal abuse, discrimination, loneliness and suicide attempts. Families with a protective role of mental health, but also as a potential harmful source of mental health. Intimate relationships and social network as a rebuilder of trust and affirmative sexuality
Kushner et al., 2013	New Zealand	***N*** = 12 **SO:** Gay (100%) **Age:** 65–81 (M = 73) **MA**: Qualitative and Cross-sectional	Self-stigma and Felt-stigma	General Mental Health	To explore the aging experiences of gay men in New Zealand over the age of 65 years, including experiences of sexual discrimination/homophobia and reflecting for future health care	About aging experience, three themes stood out: homophobia, being with someone, and future care. Resilience and social support were a significant protective factor for aging. All participants were victims of sexual stigma, and several of them indicate the association of these experiences with negative emotional states and substance use
Meri-Esh & Doron, 2009	Israel	***N*** = 13 **SO:** Gay (53.8%) and Lesbian (46.2%) **Age:** 60–84 (M = 69) **MA**: Qualitative and Cross-sectional	Self-stigma, Felt-stigma and Enacted Stigma	General Mental Health	To understand the implication and changes of aging for gay and lesbian seniors. This study explores the sexual oppression/stigma to which elderly gay and lesbian Israelis are subject, and takes a critical approach to some mental health indicators in these elderly people	The common image of gay and lesbian seniors as utterly depressed, lonely, and sexually inactive is unfounded. Aging has some liberating and well-being aspects, such as freedom from multiple personal and social obligations. Gay and lesbian seniors suffer a third type of stigma: ageism within the gay-lesbian community

Table 1 (continued)

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
Gagliesi, 2007	Argentina	***N*** = 15 **SO:** Gay (100%) **Age:** 65–/ (M = 66.9) **MA**: Longitudinal and Mixed-methods	Self-stigma, Felt-stigma and Enacted Stigma	Depression Symptoms	Implementation of a psychotherapeutic group where homosexual aging is approached from a narrative point of view, such as assessing depression and social adaptation quantitatively (pré and pos intervention)	The homogeneous group that addressed the self-stigma showed significant differences in the levels of depression between the beginning and the end of the intervention. Reports of felt stigma helped to assess self-stigma and emotional avoidance, being associated with worse levels of mental health
Van Wagenen et al., 2013	USA	***N*** = 22 **SO:** Lesbian and Gay (90%), Bisexual (5%) and heterosexual (5%) **Age:** 60–80 (87% are between 60–69 years) **MA**: Qualitative and Cross-sectional	Felt-stigma and Enacted Stigma	General Mental Health	To investigate and describe experiences of successful aging in a sample of lesbian, gay, and bisexual seniors. Includes analysis of coping processes against stigmatization and an exploration of mental health indicators in this people	Four gradations of successful aging emerge: Traditionally Successful: Avoidance of Problems; Surviving and Thriving: Successfully Coping with Problems; Working at It: Some Coping and with Effort; and Ailing: Mostly struggling with Problems. Lifelong marginalization contributed to states of depression and anxiety
Pereira et al., 2017	Portugal	***N*** = 25 **SO:** Gay (68%) and Bisexual (32%) **Age:** 60–82 (M = 63.3) **MA:** Qualitative and Cross-sectional	Self-stigma, Felt-stigma and Enacted Stigma	General Mental Health	Assess aging experiences and perceptions of older gay and bisexual men to weave lessons for a more inclusive psychosocial intervention	Ten themes about the aging experience were highlighted, among them: positive perceptions of aging, homophobia/discrimination, and personal characteristics. Most participants had some degree of self-stigma. Fear of rejection and discrimination could lead gay and bisexual seniors to avoid health care, increasing their risk of mental health problems

Table 1 (continued)

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
Orel, 2004	USA	***N*** = 26 **SO:** Lesbian (50%), Gay (38.5%) and Bisexual (11.5%) **Age:** 65–84 (M = 72.3) **MA**: Qualitative and Cross-sectional	Felt-stigma and Enacted Stigma	General Mental Health	Identify the needs and concerns of the LGB population through a series of focus groups and in-depth interviews	Seven major themes were highlighted: physical health, legal rights, housing, spirituality, family, mental health, and social networks. One of the major concerns verified was discrimination in the health context. The mental health problems for which these seniors sought treatment included substance abuse, anxiety and depression
Waling et al., 2020	Australia	***N*** = 33 **SO:** Lesbian (57.6%) and Gay (42.4%) **Age:** 60–86 (73% are between 60–70 years) **MA**: Qualitative and Cross-sectional	Felt-stigma and Enacted Stigma	General Mental Health	Understand older lesbian women and gay men's perspective of younger lesbian and gay people in Australia and their reflections on how this compares with their own youth and histories. Including your perspective on stigmatization and mental health	Gay and lesbian seniors indicate that life for LGB people today is easier and less challenging than it was decades ago. These seniors have experienced sexual stigma, violence and discrimination throughout their lives, and indicate the importance of fighting silencing and invisibility through sharing their history, which contributes to their well-being and positive health
Ribeiro-Gonçalves et al., 2019	Portugal	***N*** = 110 **SO:** Gay (81.8%), Bisexual (14.5%) and Pansexual (3.7%) **Age:** 60–79 (M = 63.5) **MA**: Quantitative and Cross-sectional	Self-stigma and Felt-stigma	Psychological Distress	Examining Psychological Distress among older Portuguese gay and bisexual men, and the mediator role of LGBT community connectedness of the effects of proximal sexual minority stress variables on Psychological Distress	Moderate levels of psychological distress were found. The connection to the LGBT community is a protective factor for LGB seniors, mediating the impact between the concealment of sexual orientation and psychological distress. Self-stigma and felt stigma had a direct impact on psychological distress

Table 1 (continued)

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
Fredriksen-Goldsen et al., 2019a, b	USA	***N*** = 200 **SO:** Gay or Lesbian (68.6%) and other diverse sexual identities (31.4%) **Age:** 80–103 (M = 84) **MA**: Longitudinal and Quantitative	Self-stigma, Felt-stigma and Enacted Stigma	Quality of life, Depression Symptoms, and Substance Use	Better understand the experiences and needs of those aged 80 years and older. Particularly, explore demographic characteristics and historical, environmental, social, and behavioral factors predicting the quality of life and physical (physical impairment) and mental (depression) health	Microaggressions were positively associated with poorer physical and mental health, particularly depression, and negatively associated with quality of life. Almost twenty percent of seniors were involved in substance use (e.g., excessive alcohol consumption, drug use for non-medical reasons). Despite the great marginalization, LGB seniors showed resilience and a relatively high quality of life
D'augelli & Grossman, 2001	USA and Canada	***N*** = 416 **SO:** Lesbian or Gay (92%) and Bisexual (8%) **Age:** 60–91 (M = 68.5) **MA**: Quantitative and Cross-sectional	Self-stigma and Enacted Stigma	General Mental Health	To examine the lifetime victimization based on sexual orientation and this effects on mental health	Nine types of verbal and physical victimization were evidenced, with almost three quarters of seniors reporting victimization due to sexual stigma. Physically abused seniors revealed worse self-esteem, worse mental health and more loneliness
Grossman et al., 2002	USA and Canada	***N*** = 416 **SO:** Lesbian and Gay (92%) and Bisexual (8%) **Age:** 60–91 (M = 68.5) **MA**: Quantitative and Cross-sectional	Self-stigma and Enacted Stigma	General Mental Health, Drug Abuse and Alcohol Abuse	To describe the psychosocial and mental and physical health characteristics of a national sample of older lesbians, gay men, and bisexual women and men and the nature of their perceived support networks	Most participants reported high levels of self-esteem, low levels of self-stigma, and self-reported good or excellent mental health, although many reported being lonely. Higher levels of victimization and living alone were related to lower levels of mental health

Table 1 (continued)

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
D'augelli et al.,2001	USA and Canada	***N*** = 416 **SO:** Lesbian or Gay (92%) and bisexual (8%) **Age:** 60–91 (M = 68.5) **MA:** Quantitative and Cross-sectional	Self-stigma	General Mental Health, Drug Abuse and Alcohol Abuse	To explore predictors of mental health in older LGB adults who lived most of their developmental years in a stigmatizing social and cultural context. And examine how older adults' attitudes about being LGB affects their mental health	Self-stigma was one of the main negative predictors of mental health. Better mental health was associated with more positive views of sexual orientation, higher income, better self-esteem and less loneliness. Social support was protective in mitigating the effects of sexual stigmatization and the physical and mental health changes associated with aging
Lyons et al., 2020b	Australia	***N*** = 548 **SO:** Lesbian (28.1%) and Gay (79.1%) **Age:** 60–85 (M = 65.8) **MA**: Quantitative and Cross-sectional	Self-stigma	Positive Mental Health and Psychological Distress	To examine how being out to parents in older gay and lesbian adults relates to mental health and sexual identity adjustment	Believing that at least one parent knows about their sexual orientation was associated with better mental health outcomes, namely less psychological distress, greater positive mental health and identity affirmation. Communicating sexual orientation to parents can promote resilience factors that can help manage sexual stigma

Table 1 (continued)

Author/Date	Country	Sample and methodological approach (MA)	Sexual stigma manifestation	Mental health indicator	Main aim	Main result
Alba et al., 2019	Australia	***N*** = 733 **SO:** Gay (68.6%) and Lesbian (31.4%) **Age:** 60–85 (M = 66) **MA:** Quantitative and Cross-sectional	Enacted Stigma	Psychological Distress and Positive Mental Health	Compared caregivers to non-caregivers on a range of health and well-being measures, including psychological distress, positive mental health, physical health and social support. And further compared caregivers who were caring for an LGBTI person to those who were caring for a non-LGBTI person	There can be a negative impact of caring for someone who is LGB as opposed to someone who is not, and this impact is potentially greater for senior lesbian women than for senior gay men. Overall exposure to sexual stigma and marginalization may be greater when the caregiver and care recipient are LGB people. Lesbian women caregivers have low levels of social support, positive indicators of mental and physical health
Lyons et al., 2020a	Australia	***N*** = 752 **SO:** Gay (68%) and Lesbian (32%) **Age:** 60–85 (M = 65.9) **MA**: Quantitative and Cross-sectional	Self-stigma	General Mental Health	To investigate the proportion of participants who felt fully comfortable to disclose their sexual orientation to health and aged care service providers. And to identify predictors of feeling fully comfortable to disclose one's sexual orientation to health and aged care service providers	Slightly more than half of gay and lesbian seniors felt comfortable disclosing their sexual orientation to health care providers. They had lower levels of self-stigma, less experiences of discrimination and greater connection to the LGBT community
Lyons et al., 2019	Australia	***N*** = 756 **SO:** Lesbian (32.1%) and Gay (67.9%) **Age:** 60–85 (M = 65.9) **MA**: Quantitative and Cross-sectional	Enacted Stigma	Positive Mental Health and Psychological Distress	Identify socio-demographic factors that are uniquely associated with recent discrimination and lifetime discrimination and identify the degree to which recent discrimination and lifetime discrimination are uniquely associated with specific aspects of mental and physical health	Recent experiences of discrimination predicted lower positive mental health in gay and lesbian seniors, and greater psychological distress in gay seniors. Over-the-lifetime experiences of discrimination predicted greater psychological distress and worse self-rated health in gay seniors

*The data collected from this study were exclusively related to the sample of senior people who were not caregivers

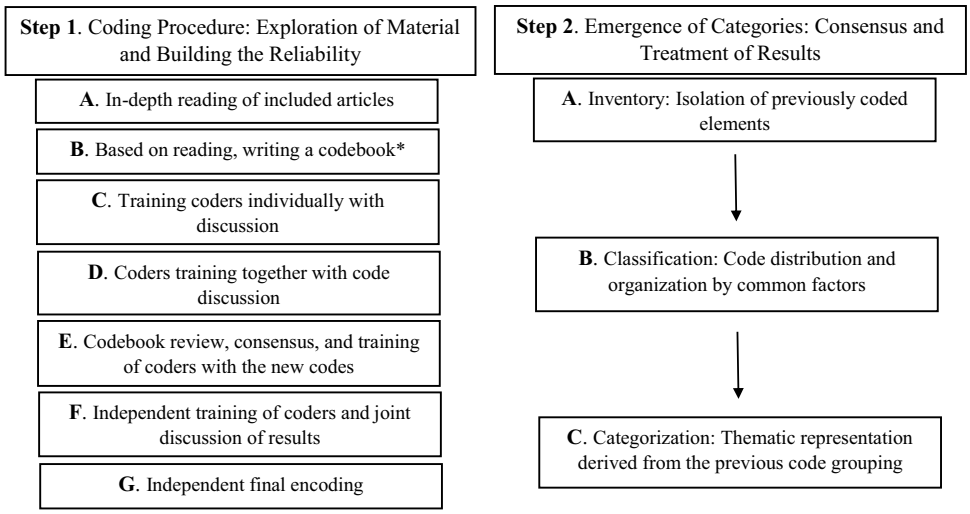

Fig. 2 Coding process and categories emergence. *Built based on the intersection of the types of sexual stigma according to Herek's (2000, 2009) approach verified in the articles and the mental health symptoms indicated in the articles

independently extracted and coded the results of all studies included, adapted from the Bardin's methodological approach (Bardin, 2011). This is one of the most used qualitative data analysis and data processing techniques, with particular relevance in the systematization of content categories, following three main phases: pre-analysis, exploration of material, and treatment of results (Bardin, 2011). The researchers reviewed the articles for the samples' demographic data, methodological approach, theoretical approach, primary research results, limitations, and future implications. Subsequently, coding was evaluated and discussed together by the two researchers and discrepancies were resolved by consensus. The specific steps of the coding process are shown in Fig. 2, and the final list of categories is included in the results section. During step 1, the team started with a codebook of 52 initial codes (stage B; e.g., "addresses enacted stigma" or "addresses depressive symptoms") which became 66 codes after its revision (stage E). Then, in step 2, the classification and reorganization of these codes resulted in a main category and four subcategories (step B and C) which are presented below in the results section. Lastly, after this process of categorization, the analyzes carried out by all quantitative articles were summarized, and the total values obtained in the instruments that measured mental health and sexual stigma indicators were transformed into percentiles, thus systematizing for all measurements the values found in percentile format. Further, we summarized the correlation/regression values between the mental health and sexual stigma indicators reported by the articles, thus composing Table 3 and 4 presented later in this review.

Variables with a mediating/moderating role were considered to be those that cumulatively corresponded to the following two criteria: (1) the authors of the included articles suggest that the variable has a direct relationship (quantitative or qualitative association) with some indicator of mental health and sexual stigma and that (2) the authors of the included articles suggest that this variable influences the relationship between the mental health and sexual stigma indicator previously identified. Furthermore, it is important to note that this study was approved by the ethics committee of ISPA—University Institute with approval code nº D/028/04/2020 and was supported by the Fundação para a Ciência e a Tecnologia (FCT) under grant SFRH/BD/143214/2019.

Results

Brief Methodological Assessment of the Included Studies

A brief methodological assessment was carried out on the quantitative (56%) and qualitative (44%) articles included in this review. We found that the vast majority of quantitative articles used observational and cross-sectional research designs. Further, they had an acceptable sample average of 483 participants (ranging from 110 to 756) and the main sampling method was non-probabilistic for convenience and snowball (100% of studies), which may represent some loss of population representativeness of the sample. The main collection method was surveys (88%), which may suggest potential response and/or sampling biases, and the main sampling sources were social networks, dating apps, and websites (67%). These articles few times mention the effect size of the analyzes carried out, but when mentioned they present low or moderate levels. Moreover, there may have been potential selection biases in some of these studies, particularly through samples of younger older adults (approximately 83% of studies had a mean age between 60 and 70 years) and with greater technological skills, due to frequent online recruitment.

As for qualitative studies, they also mainly used observational and cross-sectional designs. They had an average sample size of 20 participants (ranging from 11 to 33), the main sampling method was non-probabilistic convenience and snowball (87% of studies) and the main sampling sources were LGBT organizations (75%). The main data collection method was in-depth interviews (71%). Considering all the articles included, we found a very low risk of publication bias, the studies are all published and there is no suspicion of funding that could affect the results of these research. Further, the practical applicability of these studies is great considering the psychosocial nature of the results obtained. Moreover, no article specifically addressed the dropout rate during the investigation and only one mixed study was included, which due to its heterogeneity was evaluated according to qualitative and quantitative data separately. There is also an over-representation of Western countries that has implications in terms of sample representativeness. Finally, many studies (more than 70%) measure mental health or sexual stigma using self-report questionnaires and/or single items, and three studies had overlapping samples (D'augelli et al., 2001; D'augelli & Grossman, 2001; Grossman et al., 2002).

Descriptive Overview of the Studies

A total of 17 studies that met the inclusion criteria were included in this review (see Table 1). Studies spanned from 2001 to 2020, with nearly 70% being published after 2009 and around 40% after 2019. The vast majority of studies were conducted in the USA (35%) and Australia (35%), although studies from seven countries were included in this review (see Table 1). The 17 studies included an overall total of 3672 LGB older participants, 69% of whom were gay men, 29% lesbian women, and 2% bisexual men and women. The approximate average age for these participants was 69 years old.

Regarding theoretical models, although most articles (47%) did not identify a theoretical perspective to guide the research, the main theoretical models used were the Minority Stress Model (34.5%), the Health Equity Promotion Model (17.6%), the Critical Gerontology Theory (6%), the Narrative Approach (6%), the Socioemotional Selectivity Theory (6%), and the Life Course Theory (6%); 23.5% indicated combining more than one theoretical model. Qualitative studies tended to use mainly the Minority Stress Model (25%), while quantitative studies tended to use either the Minority Stress Model (44%) or the Health Equity Promotion Model (33%). Further, Table 2 identifies the most used instruments in all studies to collect data about mental health and sexual stigma variables.

After the coding process of the included studies was identified, an overarching category (1) Sexual Stigma(s) and Mental Health Indicators, further divided into four subcategories: (2) Self-stigma and Mental Health; (3) Felt stigma and Mental Health; (4) Enacted Stigma and Mental Health; and (5) Sexual Stigma(s), Access to Physical Health care and Mental Health.

Sexual Stigma(s) and Mental Health Indicators

Most studies included in the review suggested that different manifestations of sexual stigma have different relationships with older LGB participants' mental health. Among the three manifestations of sexual stigma, self-stigma was examined less often (64%) than enacted stigma (70%), but more so than felt stigma (58%). Self-stigma and enacted

Table 2 Instruments used in the reviewed studies

	Instrument	%
Mental Health Variables	Interviews	41.2
	Tailor-made items	29.4
	Kessler's Psychological Distress Scales (K-6 or K-10)	23.5
	Alcohol Use Disorders Identification Test (AUDIT)	17.6
	Drug Abuse Screening Test (DAST-10)	17.6
	The Short Warwick Edinburgh Mental Well- Being Scale (SWEMWBS)	17.6
	Beck Depression Scale (BDI)	6
	World Health Organization Quality of Life-BREF (WHOQOL-BREF)	6
	Center for Epidemiologic Studies Depression Scale (CES-D 10)	6
Sexual Stigma Manifestations	Interviews	47.1
	Tailor-made items	47.1
	Revised Homosexuality Attitude Inventory (RHAI)	17.6
	Lesbian, Gay, and Bisexual Identity Scale	11.8
	Questionnaire of Homosexual Identity	5.9

stigma were more likely to be examined in both quantitative and qualitative studies whereas felt stigma was assessed almost exclusively in qualitative studies.

Regarding mental health indicators, several studies reported moderate levels of psychological distress, low-to-moderate levels of depression, low-to-moderate levels of drug use/abuse, and low levels of alcohol consumption. Consistent evidence of moderate associations between general sexual stigma and several mental health indicators were reported (see Table 3). Qualitative data also suggested a direct positive relationship between sexual stigma and difficulties disclosing a sexual minority identity and the manifestation of mental health difficulties (Orel, 2004; Van Wagenen et al., 2013). Further, empirical evidence highlighted that the most secure places, created throughout life mainly through social support networks, were increasingly threatened with advanced aging and dependence (e.g., due to physical health limitations and distance from support networks), and in addition they feel limited in the possibility to create new bonds with other LGB older adults (Barrett et al., 2015; Van Wagenen et al., 2013).

By contrast, approximately 35% of the studies reported positive outcomes associated with LGB aging, namely high levels of psychological well-being and quality of life, and these positive mental health outcomes showed moderate negative relationships with sexual stigma (see Table 3). Qualitative evidence further supports these findings, thus suggesting that LGB older adults may find resources that positively contribute to their health and well-being despite significant exposure to sexual stigma throughout the life course (Pereira et al., 2017). Of note, older adults can also experience successful aging, suggesting that the process of aging allows them to enter a phase of perceived inner peace and self-acceptance, although this comfort is intrinsically and negatively associated with experiences of sexual stigma over the course of their lives (Meri-Esh & Doron, 2009).

Self-Stigma and Mental Health

When compared to other manifestations of sexual stigma, self-stigma (i.e., the internalization of societal sexual stigma by sexual minorities) was reported in the literature as one of main stigmas positively associated with mental health problems (e.g., D'Augelli et al., 2001; Fredriksen-Goldsen et al., 2019a; Gagliesi, 2007; Grossman et al., 2002). Some studies reported high levels of self-stigma among LGB older adults, which were weakly-to-moderately correlated with negative mental health indicators such as psychological distress and lifetime suicidal ideation (see Table 4). Further, all qualitative data that examined self-stigma highlighted its negative relationship with mental health (e.g., depressive symptoms). Several studies indicated concealment of sexual orientation and internal identity conflicts as two of main factors that contribute to the occurrence of self-stigma, which in turn significantly compromised successful aging adjustment and mental health of LGB older adults (Kushner et al., 2013; Pereira et al., 2017). Moreover, higher internalization of sexual stigma in these older adults throughout their life course was associated with concealing their sexual orientation to protect themselves from aggression and harassment (Meri-Esh & Doron, 2009).

Lastly, qualitative data suggested identity affirmation as a key element for mental health, by promoting the development of adaptative coping strategies to manage other stigmas in addition to sexual stigma, such as those related to ageism (Gagliesi, 2007; Pereira et al., 2017). Many studies also stressed the importance of a strong social networks—composed by partners, friends, and family—in decreasing self-stigma and anxiety symptoms (D'Augelli et al., 2001; Kushner et al., 2013; Lyons et al., 2020a, b).

Table 3 Quantitative evidence resulting from the included studies

General sexual stigma		
Mental health indicator	Percentile score of total scale value	Correlations/regressions indicators
Psychological Distress [1,9,11,15]*	32–34%	*b* adjusted between 2.04 and 4.01
Depression Symptoms [5,6]	21–34%	–
Drug Use/Abuse [3,4,7]	~24%	$r = .12$
Alcohol Consumption [4,9]	7–10%	–
Mental Well-Being [1,9,11]	74–77%	*b* adjusted around − .31
Quality of Life [5,9]	~84%	*b* adjusted between − .19 and − .43

*These numbers represent the order in which included articles appear in the references list

The "~" represents the indication of approximate value

Table 4 Quantitative evidence resulting from the included studies according to sexual stigma manifestations

Percentile score of total scales values		**Manifestation of sexual stigma**			
		Self-stigma [3,4,5,7,15]	Felt stigma [5,15]	Enacted stigma [1,3,4,9]	
		23–76%	17–54%	10–63%	
Mental health indicator	Psychological Distress [3,5,15]* ~ 39%	*r* ~ .50	*r* ~ .46	*b* adjusted between 1.27 and 2.04	Correlations/Regressions indicator
	Lifetime Suicidal Ideation [3,7] ~ 13%	*r* ~ .31	–	–	
	Depressive Symptoms [5] ~ 22%	–	–	*b* adjusted = 1.09	
	Quality of Life [5] ~ 84%	–	–	*b* adjusted = -0.16	

*These numbers represent the order in which included articles appear in the references list

The "~" represents the indication of approximate value

Felt Stigma and Mental Health

Only two quantitative studies addressed felt stigma (i.e., the expectation of imminent stigmatization based on previous experiences of victimization). These studies reported weak-to-moderate levels of felt stigma and a positive and moderate relationship between felt stigma and psychological distress (see Table 4). In addition, almost half of qualitative studies reported feeling rejected as one of the main sources of felt stigma, often deriving from family. In turn, feeling rejected was associated with higher feelings of loneliness and depression and anxiety symptoms, and for many older LGB individuals only physical distance from family made it possible to maintain their mental health (Barrett et al., 2015; Pereira et al., 2017). Further, some studies also showed invisibility as a strong contributor to felt stigma, and to a low quality of life, a constant fear of exclusion, and the use maladaptive behaviors, such as drug misuse, in LGB older adults (Kushner et al., 2013; Pereira et al., 2017). Moreover, several studies highlighted that reoccurring events of discrimination can contribute to heightening fears of future stigmatization; this hypervigilance mechanism is particularly linked to felt stigma and it is associated with lower levels of mental health (Gagliesi, 2007; Lyons et al., 2020a; Waling et al., 2020).

In contrast, half of the studies on felt stigma revealed that most LGB older adults showed high levels of resilience in the management of their mental health and emotional adjustment (Fredriksen-Goldsen et al., 2019a; Grossman et al., 2002; Lyons et al., 2020b; Pereira et al., 2017; Van Wagenen et al., 2013). Several authors (e.g., Meri-Esh & Doron, 2009) argued that old age may endow LGB older adults with coping resources, helping them manage both internal and external felt oppression. Theses authors added that broad community involvement, and not only partners' support, is needed to combat felt stigma, since older adults are at real risk for depression if the relationship ends (Barrett et al., 2015; Fredriksen-Goldsen et al., 2019a; Meri-Esh & Doron, 2009).

Enacted Stigma and Mental Health

Quantitative evidence suggested weak-to-moderate levels of enacted stigma (i.e., the direct expression of stigma in the form of violence, discrimination, or rejection). Further, reveal a positive relationship between enacted stigma and psychological distress and depressive symptoms, and a negative relationship between enacted stigma and quality of life (see Table 4). Enacted stigma was also moderately associated with lower levels of mental health in older LGB people when they are physically assaulted (D'Augelli & Grossman, 2001; Grossman et al., 2002). Further, studies showed that between 58 and 80% of LGB older adults reported experienced enacted stigma throughout their lives, while approximately 20% experienced it in the previous year. In addition, data from the USA showed that 29% of sampled participants had been threatened with physical violence (Fredriksen-Goldsen et al., 2019a; Grossman et al., 2002). Much of these findings were corroborated by Lyons et al., (2019) in Australia, highlighting that aggression and microaggressions against LGB older adults are highly prevalent in different cultures.

Some qualitative studies added that one of the most recent and important features of enacted stigma are online bullying/aggression. Internet and online social networks enable easier and more constant bullying experiences, which are negatively related to the mental health of LGB older adults (Gagliesi, 2007; Waling et al., 2020). However, studies also revealed that close and trusting relationships can be protective against enacted stigma and associated with increased life satisfaction and the possibility of recover in LGB older

adults (Barrett et al. 2015; Meri-Esh & Doron, 2009; Orel, 2004; Pereira et al., 2017; Van Wagenen et al., 2013).

Sexual Stigma(s), Access to Physical Health Care, and Mental Health

The relationships among access to physical health care, sexual stigma, and mental health were examined by almost half of the articles reviewed. Although the evidence derived from mostly qualitative studies, studies stressed that this was an essential line for future research. Some studies evidenced self-stigma and enacted stigma as some of the most significant predictors of concealment of sexual orientation to health care and age-care service providers (e.g., Alba et al., 2019; Pereira et al., 2017). Further, LGB older adults frequently avoided formal physical health care for fear of being discriminated within health contexts and sought assistance from other non-professional LGB people; this, in turn, was related to a greater risk of mental health difficulties (Alba et al., 2019; Lyons et al., 2020a; Pereira et al., 2017).

Several qualitative studies reported that, in spite of greater social acceptance, LGB individuals remained apprehensive regarding accessing health care professionals due to fear of being discriminated and feeling the need to hide their sexual orientation in health settings (Kushner et al., 2013). As such, studies showed that LGB older adults are afraid to leave their secure support networks to come to depend on formal health care, perceived as a heteronormative and discriminatory environment (Barrett et al., 2015; Orel, 2004; Pereira et al., 2017). Lastly, it is important to highlight that very few health services specifically uphold inclusive policies to promote the well-being of LGB older adults (Fredriksen-Goldsen et al., 2019a).

Discussion

The main purpose of this review was to examine how, and which manifestations of sexual stigma are related to the mental health of LGB older adults and thus summarize the existing empirical evidence. After decades of research in the field of LGB health, evidence-based relationships between sexual stigma and LGB older adults' mental health remains scarce (Fredriksen-Goldsen & Muraco, 2010; Lick et al., 2013). However, in recent decades, and particularly after 2008, studies with LGB older adults have increased significantly, particularly with the development of one of the few and largest longitudinal research projects with LGB aging adults (Fredriksen-Goldsen & Muraco, 2010; Fredriksen-Goldsen et al., 2019a).

This review showed that the three manifestations of sexual stigma examined are directly related to the mental health of LGB older adults. Particularly self-stigma (internalized sexual stigma), felt stigma (expectation of imminent stigmatization), and enacted stigma (direct prejudice, discrimination or violence) were shown to be positively associated with moderate-to-high levels of psychological distress and anxious and depressive symptoms. In fact, studies with LGB adults have previously reported this link (e.g., Meanley et al., 2019; Newcomb & Mustanski, 2010). The review by Yarns et al., (2016), which included some older LGB people in their study (50 + years old), suggested a lifetime prevalence of depression between 17 and 37%, and of anxiety between 24 and 31%, which were positively strongly related to experiences of sexual stigma. These findings were corroborated in this review among LGB older adults (60 + years old). Further, evidence from studies with LGB adults associate these mental health problems with minority stress, particularly to persistent and significantly high levels of stress associated with experienced violence due to sexual orientation, fear of rejection, or rumination from previous experiences of stigmatization (de Vries, 2014; Meyer, 2003). In LGB older adults, the chronic nature of sexual minority stress can have a cumulative effect throughout their life course, increasing health risks. The chronic exposure to stigma and minority stress can lead to a diminished ability to face aggression and microaggression, thus potentially leaving LGB older adults more vulnerable to mental health difficulties (Fredriksen-Goldsen et al., 2012; Mays et al., 2018). Moreover, LGB older adults remain exposed to other intersectional stigmas such as ageism, which is responsible for around 6.3 million cases of depression worldwide and longevity decrease of approximately 7.5 years (WHO, 2021).

In the articles reviewed, we found several factors that are suggested to act as mediators/moderators between the effects of different manifestations of sexual stigma and mental health outcomes, which may be crucial to how we can think about and intervene to improve the quality of life of LGB older adults. Particularly, we found that hypervigilance was one of these possible moderators. Despite being mainly and positively associated with felt stigma in LGB older adults, this phenomenon has been found to be positively related with other manifestations of sexual stigma, like enacted stigma (Rostosky et al., 2021). There is very little data on hypervigilance in LGB older adults, although the understanding of the importance of this phenomenon is growing (Riggle et al., 2021). Based on the empirical evidence, hypervigilance is expected to generate psychophysiological reactions that are characteristic of anxiety, such as muscle tension and cognitive rumination (Herek, 2009; Riggle et al., 2021; Subramanyam et al., 2018). Further, the constant feeling of being stigmatized at any time, which characterizes hypervigilance, also tends to promote fear of negative social evaluation, stress, and avoidance behaviors,

which are all positively associated with other internalizing problems such as depressive symptoms (Riggle et al., 2021; Rostosky et al., 2021). These findings may be particularly relevant given the older LGB population's high risk for loneliness and social isolation (Fredriksen-Goldsen et al., 2013a, b), which can be enhanced by hypervigilance.

Invisibility and feeling social rejected were also suggested as important mediator/moderator factors between sexual stigma and mental health in LGB older adults, particularly for depressive symptoms and drug misuse/abuse. Felt stigma was the manifestation of sexual stigma most often associated with these two mental health problems. Research shows that invisibility can cause vulnerability and fear of alienation from relatives, which can be perceived as very stressful and thus contributing to the loss of multiple resources including affective resources (Pereira et al., 2021; Redcay et al., 2019; Walsh et al., 2016; Yang et al., 2017). Further, this invisibility enhances the fear of LGB older adults to expose themselves to society, reinforcing the cycle of withdrawal and retraction. This cycle seems to be strongly associated with greater restlessness and mental health issues (Pereira et al., 2021; Rosati et al., 2020), thus creating the expectation of LGB older adults to be alone, stigmatized, isolated, disempowered, and rejected (Fredriksen-Goldsen et al., 2013a, b; Shankle et al., 2003). Further, this sense of social vulnerability derived from social invisibility can be a key factor in the assessment and prevention of mental problems in LGB older people, as it can be associated with other senses of vulnerability (e.g., physical vulnerability, functional vulnerability) and increases the risk of various mental health conditions such as loneliness (Pereira et al., 2021; Shankle et al., 2003).

In fact, rejection and invisibility play a prominent role in the mental health of LGB older adults, as both factors may jeopardize the social and community resources that are already scarce for this age cohort. Further, it is important to highlight that several qualitative studies (e.g., Reichstadt et al., 2010) have insisted on the importance of experiences of self-acceptance in LGB older people for successful aging, which is completely opposed to experiences of rejection and invisibility. Yet, a recent review by Brunson et al. (2019) indicated that rejection sensitivity mediated the degree of emotional dysregulation and proximal stress in LGB older adults, thus enhancing the internalization of symptoms. In this context, substance misuse/abuse can occur as a maladaptive coping strategy to manage minority stress, rejection, and invisibility, relating to the decrease of the quality of life of LGB older adults (Kaufman et al., 2017).

Concealment of sexual orientation and internal conflicts were also suggested as important mediator/moderator factors of the relationship between sexual stigma—particularly self-stigma—and mental health. Previous studies have suggested that concealment of sexual orientation was directly associated with higher internal conflicts related to sexual identity, and that these phenomena also accentuate the incongruity between the internalization of negative sexual beliefs and the desire to live openly (Hoy-Ellis, 2015; Pachankis et al., 2020; Williamson, 2000). Further, the concealment of sexual orientation may compromise the identification of LGB people with positive role models, increase the perception of isolation, and reduce access to social resources (Pachankis et al., 2020). Moreover, recent studies have suggested that LGB older adults that experienced more stigmatization were more likely to internalize sexual stigma and to have low confidence in formal interventions than younger LGB (Berg et al., 2015; Fredriksen-Goldsen et al., 2011; Kushner et al., 2013). These characteristics can contribute to negative mood symptoms and reduced quality of life (Hoy-Ellis, 2015; Kcomt et al., 2021; Yarns et al., 2016). These results highlight the importance of inclusion practices for LGB older people in social and health contexts in order to reduce the concealment of sexual orientation. As some recent qualitative studies have indicated (e.g., Lecompte et al., 2020), three fundamental pillars are necessary to improve the quality of life of these older people and their community integration: psychoeducation for professionals in the social and health context, promotion of communication and relational skills open to diversity, and promote/create inclusive and safe environments for older LGB people.

Based on these findings, the meta-analysis by Newcomb and Mustanski (2010) and previous interventions (e.g., Heilman, 2017; Rzondzinski, 2019) reinforced the potential importance of affirmative practices directed at LGB adults in order to reduce concealment of sexual identity, self-stigma, and thus improve their mental health, which ought to be adapted to LGB older adults. According to these interventions, and the recommendations for the use of affirmative psychotherapy with LGB older adults, an affirmative perspective mainly involve attitudes and approaches during the intervention process that seeks to consolidate the sexual identity of people; this process can range from not assuming heterosexuality to attitudes such as respecting and affirming the sexual orientations of clients in an affirmative counseling process (Chaney & Whitman, 2020; Hinrichs & Donaldson, 2017; Rzondzinski, 2019). Although there is few evidence on the effectiveness of affirmative interventions with LGB older adults, recent studies (e.g., Chaney & Whitman, 2020) suggested that these approaches could be potentially a resource for people with lifetime experiences of sexual stigmatization.

Findings from this review suggest that sexual stigma, regardless of its specific manifestation, is negatively associated with health care in LGB older adults, with fear/avoidance in seeking health services highlighted as the most important obstacle to receiving short- or long-term care. Data from previous studies can help justify why LGB older adults are more likely to avoid seeking needed health

care than heterosexual older adults in the first place (Davis & Sokan, 2016; Harley, 2016). Some studies in the context of long-term care estimate that 38% of the older adults abused are LGB, with verbal or physical harassment by other residents being the most common manifestation of stigma (National Senior Citizens Law Center, 2011). This reality contributes to older people reporting a constant feeling of unsafety and of being mistreated in long-term care facilities (Putney et al., 2018). Further, this fear of being stigmatized and exposed to harmful practices because of your sexual orientation also applies to seeking more immediate health help, increasing risk of physical and mental health problems, and reducing disease prevention, stabilization of chronic diseases, and overall quality of life (Bernstein, 2008; Davis & Sokan, 2016; Fredriksen-Goldsen et al., 2012). In this sense, LGB older people have difficulty to show and trust their vulnerability in a heteronormative system that is seen as unfriendly (Davis & Sokan, 2016; Putney et al., 2018). Therefore, many older people seek informal health care to feel safe, but often without realizing that they may be using less specialized care and with a greater risk of generating a burden on the caregiver (MetLife, 2010; Shiu et al., 2016; Smith et al., 2018). The research group by Fredriksen-Goldsen and collaborators, as well as other research groups, have had results similar to these and suggests that among the central points to solving this lack of trust in health services on the part of LGB older people is the training of health professionals for a more inclusive and conscious practice, such as combating self-stigma in these older people (Fredriksen-Goldsen et al., 2019a; Lecompte et al., 2020).

Although this review focused on the relationship between sexual stigma and mental health, it is important to mention that there are other empirically documented factors associated with the mental health of LGB older adults, namely that LGB older adults are more likely to live alone and being single than their heterosexual counterparts (Stonewall, 2011). They are also less likely to have children, to see their biological family regularly, to perceive lesser overall social support, to have a greater risk for multiple chronic illnesses, and be more concerned about the need for future care, independence, and mobility (Fredriksen-Goldsen et al., 2017; Stonewall, 2011). Some of these factors have been highlighted in the literature for more than a decade and should be seriously considered when designing interventions to improve LGB older adults' mental health and well-being.

Lastly, despite the focus on the negative relationship between sexual stigma and mental health, protective factors were also evidenced in some of the reviewed studies. Partner, social, and community support systems were the most reported resources against the three manifestations of sexual stigma for LGB older adults. In spite of the contextual and historical challenges that these older adults have faced, approximately 90% of them stated feeling good in their community, enjoying moderate levels of social support, and often engaging in wellness and physical activities that promoted their quality of life (Hawthorne et al., 2018; Kaufman et al., 2017). Further, a positive self-identity allows LGB older adults to face sexual stigma with greater assertiveness and resilience (Crisp et al., 2008; Hinrichs & Donaldson, 2017), psychological flourishing and recovery capacity, and of building a life narrative attributing meaning to healing (Allen & Lavender-Stott, 2020; Steelman, 2018), and consequently, better mental health and well-being (Hash & Rogers, 2013). Thus, evidence on positive mental health indicators such as well-being and life satisfaction shows that the stereotypical image that LGB older adults are sick and lacking in capabilities is not fully supported by scientific evidence, and only reproduce a fragmented picture of the overall adjustment of LGB older adults (Fredriksen-Goldsen et al., 2011; Grabovac et al., 2019; Yarns et al., 2016).

Limitations

This review also had some limitations. More quantitative evidence would be needed to allow for more robust analyses, particularly on felt stigma, and to allow meta-analytical procedures on the relationship between sexual stigma and mental of LGB older adults. The diversity of measures to assess sexual stigma and mental health variables across the articles reviewed, and the diversity of analysis plans, made it difficult to identify more complex patterns of the relationships between sexual stigmas and mental health outcomes. Further, this review did not deepen into the nuances relating to the mediation and moderation processes of the identified variables (e.g., whether we are dealing with a mediation-only or moderation-only process) and it can be also considered a limitation. This deepening can be an important target for future studies. Furthermore, this study focused particularly on cisgender populations (not including transgender populations) and this can also be considered a limitation. Lastly, this review has a potential geographic bias, since most articles were developed in Western countries, which can affect the generalization of data.

Suggestions for Future Research

A set of suggestions for future studies to address the identified gaps in the literature on LGB older adults are highlighted in this review. Research with the oldest LGB older adults, aged 80 and over, is very scarce and has a particular importance due to having potentially more experience of sexual stigma. Further, future research should examine subgroups of these older adults, rarely approached, such as LGB older adults in heteronormative marriages or LGB older adults who have not disclosed their sexual orientation. Studies regarding

the cumulative relationship between sexual stigma across the lifecycle and mental health of LGB older adults are scarce, as are comparative studies between LGB and heterosexual older population that focus on health indicators.

There is also a lack of research that focuses on protective variables of the mental health of LGB older adults, mainly studies that address the determinants of well-being, resilience, and successful aging. Further, there is a great need for research that address online resources as a means of sexual stigmatization (e.g., online bullying), and research to validate the applicability and effectiveness of interventions from the general population or from LGB younger population to the LGB older population. Systematic reviews that focus on the experience of sexual stigmatization in population with HIV or in healthcare and institutional context would also be very relevant. In addition, future studies should also evaluate mental health indicators specifically in LGB older adults who have experienced affirmative health care. Further, studies on informal care networks for LGB older people are quite scarce. Yet, studies on the experiences of conversion therapies in this older population, throughout the life cycle, are almost non-existent and can provide very revealing data, such as studies on the management and maintenance of the life purposes of LGB older people after decades of stigmatization. Lastly, studies on the mental health of older lesbian women and transgender people are even scarcer.

Conclusion and Implications

This review addressed different manifestations of sexual stigma and their relationship to mental health outcomes among LGB older adults. It was found that sexual stigma has a close relationship with overall mental health, with the relationship between the former and depressive symptoms, psychological distress, and substance misuse/abuse to be particularly noteworthy. Further, at least five negative moderator/mediator mechanisms were identified between sexual stigma and mental health outcomes: hypervigilance, invisibility, feeling social rejected, concealment of sexual identity, and internal conflicts. Stigmatization continues to drive LGB older adults away from health care. However, these older adults have also developed resources for stigma management, such as resilience and support strategies throughout the lifecycle, presenting significant levels of well-being and quality of life. This review has the potential to inform future research and the applied psychological and psychiatric field about the relationship between sexual stigma and mental health outcomes, especially given that the evidence in this field of research is expected to continue to grow significantly in the coming years. Further, this review included few studies in Spanish and Portuguese, or developed in countries where these were the official languages. This low inclusion may be mainly due to the few studies and few social initiatives that exist to address the older sexual minority population in southern Europe and South America. Hence the potential need to adopt social inclusion and public health measures aimed at these populations.

Author Contribution JARG participated in the conceptualization, data curation, formal analysis, funding acquisition, investigation, methodology, project administration, resources, supervision, validation, visualization, writing—original draft, writing—review and editing. JCJ participated in the conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, validation, visualization, writing—original draft, writing—review and editing. PAC participated in the conceptualization, data curation, formal analysis, funding acquisition, methodology, project administration, resources, supervision, validation, writing—review and editing. IL participated in the conceptualization, funding acquisition, investigation, methodology, project administration, resources, supervision, validation, visualization, writing—review and editing. All authors contributed to the article and approved the submitted version.

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Declarations

Ethics Approval and Consent to Participate All procedures were in accordance with the ethical standards of the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. This study was approved by the ethics committee of ISPA—University Institute with approval code nº D/028/04/2020.

Conflict of Interest The authors declare no conflict of interest.

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