Assessment of health-care professionals' knowledge and attitudes on sexuality and aging: an integrative review

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Abstract

Aim: To establish an understanding of (a) healthcare professionals' knowledge and attitudes; and (b) tools used to assess sexuality in older people living with/(out) dementia and those identified as lesbian, gay, bisexual, trans or intersex (LGBTI) individuals.

Design: Integrative review of the literature as registered on the PROSPERO international Prospective Register of Systematic Reviews (CRD42019129589).

Data sources: A comprehensive and systematic literature search was conducted for the period from 2009 to 2019 across eight electronic databases; CINAHL, PubMed, MEDLINE, Web of Science, Cochrane library, Embase, PsycINFO and Scopus, together with a manual search of reference lists.

Review Methods: Screening of titles, abstracts and full texts of eligible studies plus quality appraisal (using the Mixed Methods Appraisal Tool) were independently conducted by two reviewers with disagreements resolved via discussion with a third reviewer.

Results: Nineteen articles were reviewed with three themes identified from the synthesis: 1) varying knowledge and attitudes amongst healthcare professionals; 2) needs for professional development opportunities and support from workplace and 3) lack of recent validated tools to assess knowledge and attitudes.

Conclusion: Healthcare professionals' knowledge and attitudes towards sexuality in older people living with/(out) dementia and those identified as LGBTI individuals are varying. Sexuality education and professional development training are needed to enhance their knowledge and attitudes and build skills in order to manage sexuality concerns. Current assessment tools are inadequate, highlighting the need for an appropriate assessment tool development to be developed.

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Keywords: healthcare professionals, knowledge, attitudes, ageing, sexuality, dementia

TITLE PAGE

Title of paper:

Assessment of healthcare professionals' knowledge and attitudes on sexuality and ageing: An integrative review

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Introduction

According to the World Health Organisation, sexuality is *"a central aspect of being human throughout life encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction"* (p.5). Individuals can experience and express their sexuality cognitively through thoughts, fantasies, desires, beliefs, attitudes, and values as well as behaviourally through practices, roles, and relationships (World Health Organisation, 2006).

Older people have sexual desire and needs, just like young people do. People over 65 years of age can remain sexually active and continue to express their sexual desire and needs. The motivation of maintaining an active sexual life in older age is not only to maintain overall physical function but also for psychosocial gains such as feeling young again (Gewirtz-Meydan & Ayalon, 2019). Despite this, older people's sexual rights are not always supported, especially those living with dementia and identified as lesbian, gay, bisexual, trans or intersex (LGBTI) (Eliason, Dibble & DeJoseph, 2010; Jones & Moyle, 2018; Lim & Levitt, 2011). Sexual expression in the context of dementia creates emotional discomfort and a variety of ethical concerns from matters of privacy to consensual issues (Doll, 2013; Mahieu & Gastmans, 2012). Negative attitudes towards LGBTI individuals persist despite growing acceptance worldwide (Stewart & O'Reilly, 2017) with concerns over a lack of sensitivity and the existence of discrimination within the healthcare system (Simpson, et al., 2017; Sharek, et al., 2015; Wylie, Wood, & McManus, 2013).

Avoidance of conversations with older people about their sexuality and sexual health concerns by healthcare professional is commonly reported in healthcare settings (Doll, 2013; McGrath & Lynch, 2014). This may be explained by healthcare professionals' lack of knowledge and attitudes on this topic. Literature suggests that healthcare professionals have limited knowledge about sexuality in older people and an inability to discuss associated issues

(Bauer, Haesler, & Fetherstonhaugh, 2016; Hayward, Robertson, & Knight, 2013). Healthcare professionals are also implied to possess negative attitudes towards sexuality in older people, particularly those who are living with dementia and have identified as LGBTI (Lim & Levitt, 2011; Mahieu & Gastmans, 2012).

A recent review has examined knowledge, beliefs and attitudes of nurses and midwives towards LGBTI individual broadly (Stewart & O'Reilly, 2017), with limited specific consideration to either their sexual desires and needs or those aged 65 years and over. Furthermore, another review (Haesler, Bauer, & Fetherstonhaugh, 2016) and studies have often investigated knowledge and attitudes on this topic in healthcare and non-healthcare professionals combined (i.e., all healthcare workers including personal care workers, managers and administrative staff), making data disaggregation difficult (Doll, 2013; Hinrichs & Vacha-Haase, 2010; Simpson, Almack, & Walthery, 2018; Villar et al., 2017; Villar et al., 2015). This is problematic as education and training of healthcare professionals and non-healthcare professionals differs. A clear understanding of the knowledge and attitudes of health professionals, working across all care settings, is thus needed to develop appropriate education strategies to increase their awareness and improve their attitudes on this topic. Finally, to our knowledge, there is a lack of comprehensive review around how healthcare professionals' knowledge and attitudes on sexuality and ageing are being assessed.

Therefore, this review aims to address this gap by examining current evidence on this matter through an integrative review process: 1) to discover knowledge and attitudes towards sexuality in older people with/(out) dementia and those identified as LGBTI individuals in healthcare professionals, and 2) to explore what instruments are used in the assessment of healthcare professionals' knowledge and attitudes towards sexuality in older people with/(out) dementia and those identified as LGBTI individuals .

METHOD

Aim

The aim of this review is to describe, evaluate and synthesise published literature, both qualitative and quantitative studies, on ageing and dementia care relating to sexuality. The research questions were:

1. What are healthcare professionals' knowledge and attitudes towards sexuality in older people including those living with/(out) dementia and those identified as LGBTI individuals?

2. What tools are used in the assessment of healthcare professionals' knowledge and attitudes towards sexuality in older people living with/(out) dementia and those identified as LGBTI individuals?

Design

This review adopted an integrative approach where a holistic understanding of the research topic will be drawn from findings of various methodologies and data (Whittemore & Knafl, 2005). This was considered an appropriate approach as it provides a comprehensive overview and contribution to the body of knowledge and, consequently, to clinical practice and research in relation to the phenomenon of interest (Whittemore, 2005).

Search strategy

Eight electronic databases spanning across health, nursing, science and medicine disciplines were searched: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Publications (PubMed) databases, MEDLINE, Web of Science, Cochrane Library, Embase, PsycINFO and Scopus databases. The search scope was to identify articles published between 2009 and 2019. The search terms used include synonyms and derivates of 'sexuality', 'healthcare professionals', 'knowledge/attitudes' and 'older people'. Additional manual searching of references for relevant potential papers was also conducted through eligible articles' reference lists.

Inclusion/Exclusion criteria

To be included in this review, studies had to meet the following criteria: (1) primary full-text articles published in English; (2) published between: the 1st of March 2009 and the 31st of December 2019; (3) studies reporting on qualitative and/or quantitative descriptions of knowledge and/or attitudes related to sexuality in older people living with/(out) dementia and LGBTI individuals; and (4) study participants were healthcare professionals (e.g., physicians, nurses, allied health professionals, social workers, dietitians, speech pathologists, physiotherapists or occupational therapists).

Exclusion criteria were: (1) studies including non-registered professionals (e.g., massage therapists, personal care workers, nursing assistants/aids); (2) studies that focused specifically on non-psychosocial aspects of older people's sexuality (i.e., sexual health assessment, sexual function and sexually transmitted diseases) as sexuality and intimacy are considered more important than the sexual act in older age which allows older people to express and receive love/affection and feel closeness from spouse/partners, family and others (Pinho & Pereira, 2019); (3) studies investigating or developing assessment tools and (4) non-original research such as reviews, opinion papers, letters, theses, commentaries, editorials, discussion documents, notes and conference proceedings.

Search outcome

The initial search yielded in 7556 records from the databases. After removal of duplicates (n=3867), title and abstract screening of 3689 records were conducted by two reviewers (YC and CJ) independently according to the inclusion and exclusion criteria where 145 records were qualified for full text review. An extra 12 records were found through manual searching for relevant articles from reference lists of the 145 records. Full texts for the total 157 records were retrieved and assessed for inclusion eligibility by two reviewers (YC and CJ). Disagreements

were resolved via discussion with another reviewer (AB). There was a total of 19 studies eligible for inclusion in this review.

Figure 1. depicts the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram on how studies were selected (Moher et al., 2009).

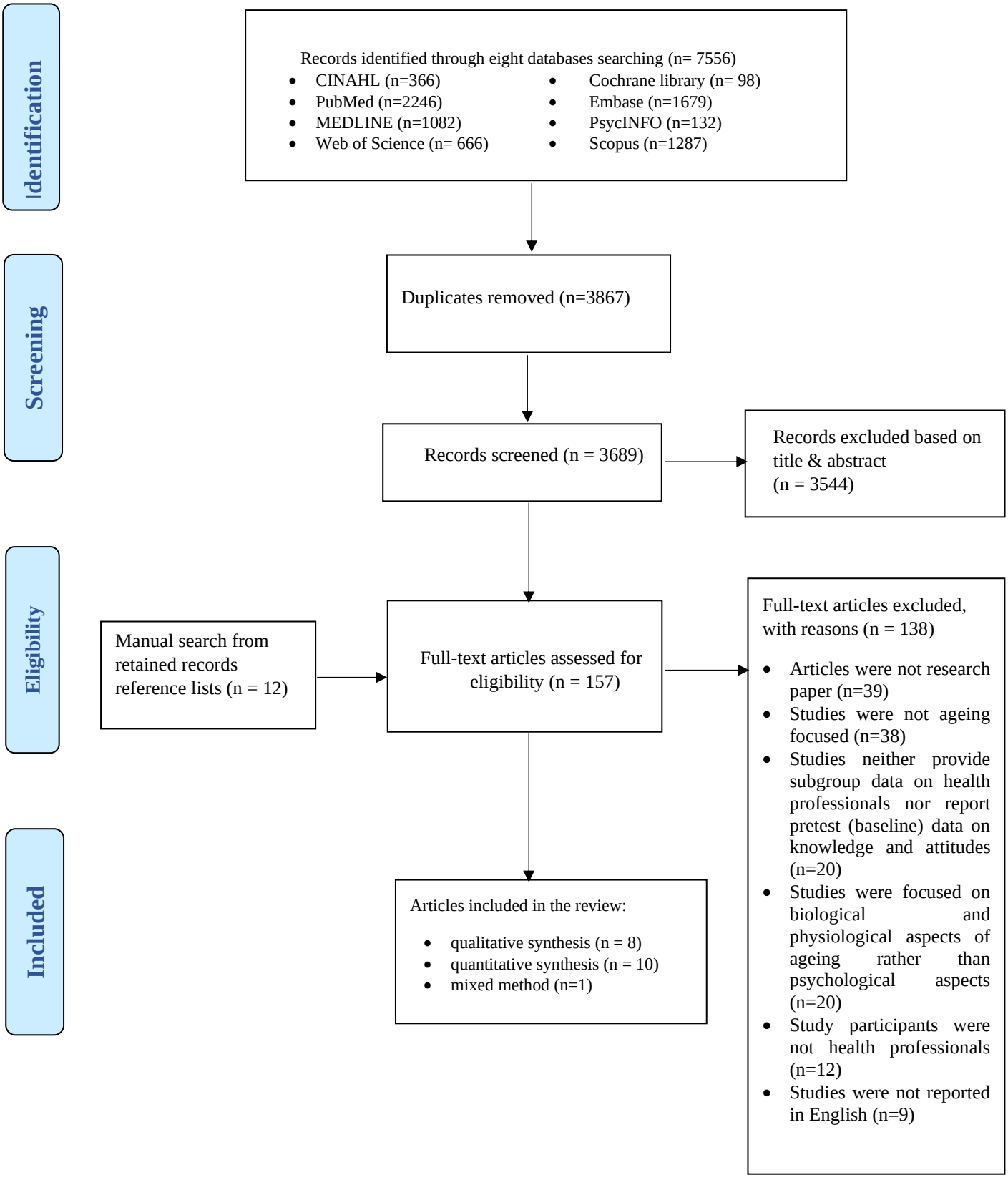

Fig. 1. PRISMA flow chart showing article selection stages (Moher et al., 2009)

Quality appraisal

The quality of the 19 included studies was evaluated by using the Mixed Methods Appraisal Tool (MMAT) version 2018 (Hong et al., 2018). The tool consists of an evaluation of qualitative studies, quantitative randomised controlled trials, quantitative non-randomised studies, quantitative descriptive studies and mixed-methods studies. Instead of a scoring system, details for each criterion are reported to ensure better descriptions for the quality of the included studies (Hong, Gonzalez-Reyes, & Pluye, 2018). Two reviewers (YC and CJ) conducted the quality appraisal of the included studies independently. Any discrepancies were resolved through discussion with the third reviewer (AB) in order to reach consensus on the quality assessment of the included studies.

Data extraction

Data from each of 19 articles was extracted into an Excel spreadsheet by one reviewer (YC) and checked by the remaining reviewers (CJ and AB). The contents of data extraction included authors, year of publication, country, study aim, study design, study setting, sample, data collection method, and main findings. Emails were sent to the corresponding author of articles to seek clarification on published studies where necessary. Extracted data is presented in Table 1.

Data synthesis

Synthesis of all included studies (i.e., quantitative and qualitative) was undertaken, using an integrative approach. To ensure a thorough and unbiased integrative synthesis, data analysis was conducted by two reviewers independently (YC and CJ) and included the process of data reduction, data display, data comparison and conclusion drawing and verification (Whittemore & Knafl, 2005). First, subgroup classifications of the studies were undertaken for data reduction. Second, an iterative process of assessing data in Table. 1 to identify themes was undertaken followed by the comparison of data between the two reviewers (YC and CJ). Third,

data was interpreted at a higher level (i.e., conclusion drawing and verification). The final summary of evidence in the review was integrated into the five themes.

Results

Study characteristics and participants

A summary of characteristics and participants are presented in Table 1. Studies included in this review were conducted in Australia (Bauer et al., 2013; Chen, Jones, & Osborne, 2017; Heron & Taylor, 2009; Jones & Moyle, 2016; Shuttleworth et al., 2010; Syme, Lichtenberg, & Moye, 2016), United States (Flaget-Greener, Gonzalez, & Sprankle, 2015; Hardacker et al., 2014; Hughes & Wittmann, 2015), Belgium (Mahieu et al., 2013; Mahieu et al., 2016; Thys et al., 2019), New Zealand (Cook et al., 2017), Israel (Gewirtz-Meydan et al., 2019), Korea (Lee & Yoo, 2016), Ireland (McGrath & Lynch, 2014) and Brazil (Evangelista et al., 2019; Venturini et al., 2018). Additionally, there was a cross-sectional study conducted in Australia, New Zealand and South Africa (Helmes & Chapman, 2012). Of these studies, 10 were quantitative (i.e., descriptive, exploratory and quasi-experimental designs), eight were qualitative (including proof-of concept and grounded theory approaches) and one used a mixed-method design which involved a pre/post intervention assessment and an interview.

There were six studies that examined both knowledge and attitudes towards sexuality in older people including those living with/(out) dementia (Chen et al., 2017; Evangelista et al., 2019; Helmes & Chapman, 2012; Lee & Yoo, 2016; Mahieu et al., 2013; Mahieu et al., 2016). Nine studies focused on attitudes (Cook et al., 2017; Flaget-Greener et al., 2015; Gewirtz-Meydan et al., 2019; Heron & Taylor, 2009; McGrath & Lynch, 2014; Shuttleworth et al., 2010; Syme et al., 2016; Thys et al., 2019; Venturini et al., 2018), while only one examined knowledge (Hughes & Wittmann, 2015) with three studies involving an education intervention (Bauer et al., 2013; Hardacker et al., 2014; Jones & Moyle, 2016). Among these quantitative

studies, Flaget-Greener et al. (2015) used two vignettes to identify participants' attitudes towards sexuality in older people.

Data in qualitative studies was collected through focus groups (McGrath & Lynch, 2014), individual semi-structured interviews in person (Cook et al., 2017; Heron & Taylor, 2009; Jones & Moyle, 2016; Thys et al., 2019; Venturini et al., 2018) or via telephone (Shuttleworth et al., 2010; Syme et al., 2016), and individual structured interviews (Gewirtz-Meydan et al., 2019). Data in quantitative studies was collected via self-administered/reported questionnaires (Bauer et al., 2013; Chen et al., 2017; Evangelista et al., 2019; Flaget-Greener et al., 2015; Hardacker et al., 2014; Helmes & Chapman, 2012; Hughes & Wittmann, 2015; Jones & Moyle, 2016; Lee & Yoo, 2016; Mahieu et al., 2013; Mahieu et al., 2016).

Study settings included aged care facilities/long-term care (Bauer et al., 2013; Chen et al., 2017; Cook et al., 2017; Heron & Taylor, 2009; Jones & Moyle, 2016; Mahieu et al., 2013; Mahieu et al., 2016; Shuttleworth et al., 2010; Syme et al., 2016; Thys et al., 2019; Venturini et al., 2018), hospital (Lee & Yoo, 2016), universities (Helmes & Chapman, 2012), primary care (Evangelista et al., 2019; Gewirtz-Meydan et al., 2019; Hughes & Wittmann, 2015) and multiple healthcare settings (Hardacker et al., 2014; McGrath & Lynch, 2014). Flaget-Greener et al. (2015)'s study setting was not specified.

The majority of study participants recruited had a nursing background (Bauer et al., 2013; Chen et al., 2017; Cook et al., 2017; Evangelista et al., 2019; Hardacker et al., 2014; Heron & Taylor, 2009; Hughes & Wittmann, 2015; Jones & Moyle, 2016; Lee & Yoo, 2016; Mahieu et al., 2013; Mahieu et al., 2016; Shuttleworth et al., 2010; Syme et al., 2016; Thys et al., 2019; Venturini et al., 2018). Other health professionals recruited included: psychologists (Flaget-Greener et al., 2015), physicians with sexologist certification (Gewirtz-Meydan et al., 2019), occupational therapists (OTs) (McGrath & Lynch, 2014), physicians (Hughes & Wittmann,

2015) and university lectures/educators working in health-related faculties (Helmes & Chapman, 2012).

Convenience sampling (Bauer et al., 2013; Chen et al., 2017; Evangelista et al., 2019; Helmes & Chapman, 2012; Jones & Moyle, 2016; Lee & Yoo, 2016; Mahieu et al., 2013; Mahieu et al., 2016; Syme et al., 2016) and purposive sampling (Flaget-Greener et al., 2015; Gewirtz-Meydan et al., 2019; Hardacker et al., 2014; Hughes & Wittmann, 2015; Heron & Taylor, 2009; McGrath & Lynch, 2014; Shuttleworth et al., 2010; Thys et al., 2019; Venturini et al., 2018) were used in 18 studies. Only Cook et al. (2017) adopted a snowball sampling approach. Sample size of included studies ranged from four to 1166. The majority of participants in the included studies were (1) were females (> 80%); (2) were aged between 40 and 60 years of age; (3) have work experience varying from less than a year to 20 years, and (4) have qualifications ranging from a diploma to doctorate degree. Additional information regarding participants' characteristics such as types of professionals and country/nationality are reflected in Table 1.

Risk of bias

All studies met the first two screening criteria of the MMAT. All qualitative studies fulfilled the five appraisal criteria where appropriate qualitative approach and data collection methods were used to address the research questions. Furthermore, findings were adequately derived from and substantiated by the qualitative data with coherence demonstrated between qualitative data sources, collection analysis and interpretation. For quantitative studies, nine out of ten did not meet the criteria of the risk of nonresponse bias where response rate ranged from 24.9% to 66.0% (Chen et al., 2017; Evangelista et al., 2019; Flaget-Greener et al., 2015; Helmes & Chapman, 2012; Hughes & Wittmann, 2015; Mahieu et al., 2013; Mahieu et al., 2016) with four studies not reporting response rate (Bauer et al., 2013; Hardacker et al., 2014;

Jones & Moyle, 2016; Lee & Yoo, 2016). Small sample size was acknowledged as a limitation in four studies (Bauer et al., 2013; Chen et al., 2017; Cook et al., 2017; Syme et al., 2016). A summary of quality appraisal can be found in Table 1.

Themes

Theme one: Varying knowledge and attitudes amongst healthcare professionals

Review of included studies revealed that the overall knowledge of healthcare professionals on sexuality in older people varied from being inadequate to good (Chen et al., 2017; Evangelista et al., 2019; Hardacker et al., 2014; Hughes & Wittmann, 2015; Helmes & Chapman, 2012; Lee & Yoo, 2016; Mahieu et al., 2013; Mahieu et al., 2016). Most studies did not detail the areas of knowledge related to sexuality and ageing that were inadequate (Hughes & Wittmann, 2015; Helmes & Chapman, 2012; Mahieu et al., 2013). In some studies, the changing sexual functioning related to ageing (Chen et al., 2017; Evangelista et al., 2019; Jones & Moyle, 2016) as well as awareness of sexuality, and health benefits of sexual activity for LGBTI elders (Hardacker et al., 2014) were areas where poor knowledge was reported. On contrary, good knowledge related to the capacity of older males to engage in sexual behaviours was found in Lee and Yoo (2016). Greater knowledge of sexuality and ageing was found to be significantly related to positive attitudes in healthcare professionals (Chen et al., 2017) and for those who have undertaken a greater amount of continuing education and training in the care of older people (Mahieu et al., 2016). The level of knowledge was suggested to be related to qualification and professional position (Chen et al., 2017). Physicians and psychologists possessed higher levels of knowledge than nurse educators working in universities (Helmes & Chapman, 2012). Lee & Yoo (2016) and Chen et al. (2017) reported that nurses' knowledge on sexuality in older adults was low to moderate. Nurses in the study by Mahieu et al. (2016) only correctly answered about half of the knowledge questions with some education

intervention studies revealed poor nurses' knowledge at baseline (Bauer et al., 2013; Hardacker et al., 2014; Jones & Moyle, 2016).

Differences in attitudes towards sexuality in older people across profession and locality were also gathered from this review. Occupational Therapists expressed their willingness to respond and address sexuality-related issues of clients but were concerned as to whether they can do so appropriately and adequately (McGrath & Lynch, 2014). Social work educators in Australia were more supportive of sexual expression than nurse educators in South Africa who were believed to be conservative due to culture differences (Helmes & Chapman, 2012). Korean nurses also possessed conservative attitudes towards sexuality that could be influenced by their traditional Confucian values, as sexuality is taboo and forbidden for discussion (Lee & Yoo, 2016). Directors of Nursing (DONs)/Nurse Managers (NMs) in Australia and the United States were supportive of residents' sexual expression as they believed that older people living with/(out) dementia not only have the needs, but also the rights, to express their sexuality (Shuttleworth et al., 2010; Syme et al., 2016). Furthermore, nurses in nursing home have reported feeling unclear of appropriate actions when to address issues of sexuality in older people (Thys et al., 2019) and did not know how to respond to sexual behaviours such as 'masturbation' (Evangelista et al., 2019). Permissive attitudes towards support for sexuality and intimacy in older people living with dementia including those in same-sex relationships, were also held by nurses (Chen et al., 2017).

It was reported that personal beliefs, age, gender and years of working experiences could have an impact on healthcare professionals' willingness to address older adults' sexuality issues and concerns during care provision (Helmes & Chapman, 2012; Mahieu et al., 2016). Healthcare professionals' attitudes towards intimacy and sexuality were influenced by personal beliefs drawn from their own life values and experiences where there could be a personal and/or work culture of silence when it comes to sexuality (Thys et al., 2019). Age was significantly

associated with attitudes, whereby older healthcare professionals and educators were more supportive of sexual expression in older people (Helmes & Chapman, 2012). Furthermore, male nurses in comparison to female nurses were more accepting of sexuality in older people (Lee & Yoo, 2016) while healthcare professionals with fewer years of work experience were more likely to hold negative attitudes towards sexuality in older people (Mahieu et al., 2016).

Complex ethical and legal concerns can cause moral uncertainty and distress for healthcare professionals. Consequently, they reported having to draw from their personal beliefs and experiences to decide whether residents' intimacy and sexual expression should be supported or curtailed (Cook et al., 2017; Syme et al., 2016; Thys et al., 2019).

Studies in this review focused on healthcare professionals' knowledge and attitudes towards sexuality in older people living with dementia and those identified as LGBTI older individuals was insufficient to identify themes. For residents living with dementia, disinhibited sexual behaviours (e.g., public masturbation) were perceived as problematic by nurses, resulting in moral judgment concerns (Shuttleworth et al., 2010). Due to the progression of cognitive impairment and decline in communication abilities (i.e., verbal and non-verbal), nurses considered residents living with dementia at risk of sexual abuse by others and/or normalised their disinhibited sexual behaviours as part of the progress of dementia. Challenges in responding to residents' expression of sexuality were reported by nurses because of uncertainty as to whether such expressions are driven by a sexual need or a need for intimacy (Thys et al., 2019). Furthermore, while Hardacker et al. (2014) reported that nurses had introductory knowledge of older LGBTI, they experienced difficulty recognising and managing situations related to homosexuality, with emotional responses ranging from embarrassment, discomfort and the use of humour to direct oppressive action towards same-sex sexuality being highlighted by Venturini et al. (2018). However, nurses' attitudes towards

LGBTI relationships in older people became more permissive following an education intervention (Bauer et al., 2013).

Theme two: Needs for professional development opportunities and support from workplace

An additional support for healthcare professionals in the form of learning opportunities and care guidance to appropriately respond to sexuality issues and concerns of older people with/(out) dementia, as well as those identified as LGBTI has been identified in this review (Bauer et al., 2013; Flaget-Greener et al., 2015; Gewirtz-Meydan et al., 2019; Hughes & Wittmann, 2015; Helmes & Chapman, 2012; Hardacker et al., 2014; Heron & Taylor, 2009; Jones & Moyle, 2016; McGrath & Lynch, 2014; Mahieu et al., 2016; Mahieu et al., 2013; Shuttleworth et al., 2010; Syme et al., 2016; Thys et al., 2019).

Reports indicated the curriculum related to the topic of sexuality was taught inconsistently for undergraduate students in the healthcare field. Occupational therapists reported education in older peoples' sexuality was not taught either in university or after becoming a registered professional (McGrath & Lynch, 2014). However, some physicians and nurse practitioners (NPs) claimed they received the relevant trainings in sexual health during their formal education but expressed a desire to learn more about changes in ageing sexual function (Hughes & Wittmann, 2015). Several studies highlighted that greater understanding of older adults' sexual needs and intimacy was associated with improved attitudes in healthcare professionals (Helmes & Chapman, 2012; Mahieu et al., 2013; Mahieu et al., 2016), which in turn, predicts the likelihood of healthcare professionals conducting a sexual health assessment with older people (Flaget-Greener et al., 2015). The review found that appropriate education interventions could raise healthcare professionals' awareness of their own attitudes and understanding of facts about sexuality and ageing (Bauer et al., 2013; Hardacker et al., 2014; Jones & Moyle, 2016; Syme et al., 2016).

Lack of policies addressing sexual expression management and the importance of ongoing sexuality education were noted in this review (Syme et al., 2016). As Shuttleworth et al. (2010) revealed, the majority of nursing homes offered staff regular in-service training opportunities and resources around privacy, dignity and dementia, but the topic of sexuality was only included in the context of respect and dignity of residents' rights. A reactive approach where training on sexuality was only being provided to respond to specific incidents was adopted in some nursing homes (Shuttleworth et al., 2010). Communication and open discussion with families and staff were not emphasised unless the issue was considered problematic and required attention (Thys et al., 2018).

Theme three: Lack of recent validated tools to assess knowledge and attitudes

Three main assessment tools, the Aging Sexual Knowledge and Attitudes Scale (ASKAS), the Staff Attitudes about Intimacy and Dementia Survey (SAID) and a self-developed assessment tool, were identified in this review. The ASKAS contains 35 items assessing knowledge about physical sexual function changes related to ageing in males and females, and 26 items about respondents' attitudes towards sexual behaviours in older people on a seven-point Likert scale. Lower knowledge scores indicate poor knowledge and lower attitudes scores indicate positive attitudes (White, 1982). The Staff Attitudes about Intimacy and Dementia survey (SAID) assessed healthcare professionals' attitudes about ageing, intimacy, sexuality and dementia. The survey contains 20 items with a five-point Likert scale (Kuhn, 2002).

The only study that used the ASKAS without modifications was reported by Helmes and Chapman (2012). Hughes and Wittmann (2015) only employed knowledge items of the ASKAS to assess physicians and NPs' understanding about sexuality in older people. However, Flaget-Greener et al. (2015) removed ten nursing home related items from the ASKAS,

modified six attitudinal ASKAS items and added six items from a previous publication to make questions more general about sexuality in older people. The ASKAS was also modified and translated into other languages that include Korean (Lee & Yoo, 2016), Dutch (Mahieu et al., 2013; Mahieu et al., 2016) and Brazilian Portuguese (Evangelista et al., 2019). For these translated ASKAS scales, the scoring system, the number of knowledge or attitudes items, and details of questionnaires were adapted with its psychometrics, examined in comparison to original ASKAS. Reliability (Cronbach's α) for the ASKAS or modified and translated versions was reported in several studies ranging from 0.78 to 0.88 for knowledge items and 0.64 to 0.88 for attitudinal items (Bauer et al., 2013; Chen et al., 2017; Flaget-Greener et al., 2015; Helmes & Chapman, 2012; Jones & Moyle, 2016; Lee & Yoo, 2016, Mahieu et al., 2013; Mahieu et al., 2016). Two studies by Hughes & Wittmann (2015) and Evangelista et al. (2019) did not report reliability in their studies.

Bauer et al. (2013), Chen et al. (2017) and Jones & Moyle (2016) combined the ASKAS scale with selected SAID survey items to satisfy the issues of lack of dementia and LGBTI components in the ASKAS scale. However, the reasons for the selected SAID survey items were not specified. Reliability of the SAID survey was also not reported in any of these studies (Bauer et al., 2013; Chen et al., 2017; Jones & Moyle, 2016). Hardacker et al. (2014) was the only study that employed self-developed questionnaires, but the questionnaires were not described in details.

Discussion

This review aimed to provide an understanding of healthcare professionals' knowledge and attitudes, including assessment tools used, towards sexuality in older people living with/(out) dementia and those identified as LGBTI individuals. This review highlights the fact that relevant guidelines and policies to support education, research and clinical settings are

required. The main findings of this review were that 1) healthcare professionals' level of knowledge and attitudes can be dependents on their professional position, qualification, personal beliefs and years of work experience; 2) there is a critical need for professional development learning opportunities and care guidance and 3) there are limited well-validated tools to assess knowledge and attitudes.

Findings from this review found healthcare professionals' knowledge and attitudes varied greatly, a finding that is not fully congruent with the systematic review of Haesler et al. (2016), which concluded that knowledge of healthcare professionals is often inadequate, and attitudes are negative. This can be explained by the difference in studies selection such as the inclusion of only healthcare professionals who have registered with national boards and the omission of healthcare workers in our review, which may have influenced the review outcomes. Some studies found that profession does not correlate with knowledge and attitudes towards sexuality in older people (Bauer et al., 2013; Helmes & Chapman, 2012). However, Gewirtz-Meydan, Even-Zohar and Werner (2018) indicated that considering goals of care differ among healthcare professionals specialised in different areas of care, this could possibly have a significant influence on attitudes towards sexuality in older people such as those found in the study by Chen et al. (2017) where the relationship between profession and qualification was significantly related to ASKAS results. Furthermore, it is likely that the additional years of undergraduate studies completed in some profession (e.g., physicians) may result in greater knowledge regarding sexuality and ageing. For example, Hughes and Wittmann (2015) have reported some physicians and NPs having trainings in sexual health during their formal education.

This review found that healthcare professionals generally had positive attitudes (Evangelista, et al., 2019; Mahieu, et al., 2016; Mahieu, et al., 2013). Although some healthcare professionals considered sexuality in older people as a natural, physiological need which

promotes happiness and quality of life, some found it confronting, challenging and difficult to accept and acknowledged in care provision (Pinho & Pereira, 2019). The balance between supporting residents' sexual intimate expression and residents' rights and autonomy is an ongoing challenge, particularly, for nursing homes (Heron & Taylor, 2009). Moreover, while some healthcare professionals accepted patients' rights of sexual expression, others simply choose to disregard these issues as they were incongruent to their personal beliefs and moral judgement, especially when an individual living with dementia was involved (Helmes & Chapman, 2012; Jone & Moyle, 2018; Mahieu et al., 2016).

Review of studies demonstrated a positive association between knowledge and attitudes towards sexuality in older people (Jones & Moyle, 2016; Lee & Yoo, 2016; Mahieu et al., 2016). While permissive attitudes of healthcare professionals were generally noted in this review, there is a risk that permissive attitudes do not necessarily translate to actual positive behaviours due to bias and social desirability in responses (Mahieu et al., 2016). Therefore, liberal attitudes may not necessarily result in permissive behaviours (Bouman, Arcelus, & Benbow, 2007). Our findings highlight that there is room for improvement in knowledge and attitudes of healthcare professionals caring for older adults, with personal beliefs and moral views especially important to consider.

Educational intervention is a beneficial supplement for lack of knowledge and negative attitudes towards sexuality in older people (Ewen & Brown, 2012; Freeman, Sousa, & Neufeld, 2014). Several meaningful patterns found in current studies reviewed clearly demonstrated the necessity of developing practical care guidelines and training for healthcare professionals (Bauer et al., 2013; Hardacker et al., 2014; Jones & Moyle, 2016; Shuttleworth et al., 2010). Given that human sexuality is not only considered to be significantly important to individuals but also related to the issue of care, it seems like a paradox that this area is given low priority (Astbury-Ward, 2011). Furthermore, for medical courses, biological aspects of sexual health

(i.e., diseases and dysfunction) is emphasised more than the psychosocial components such as sexual behaviours, love and sexuality including those occurring in older age (Komlenac, Siller, & Hochleitner, 2019). Psychology students may have also better knowledge from their geriatric training and interest in working with older adults than medical students (Snyder & Zweig, 2010). Additionally, Gewirtz-Meydan et al. (2018) indicates that nursing students possessed more conservative attitudes than social work students which corresponds with the study result suggesting that South African nurses were more conservative than social workers (Helmes & Chapman, 2012). Undergraduate healthcare students who consider future careers in the ageing industry are likely to be more knowledgeable about age-related changes in sexuality, however, inadequate information about ageing and sexuality can still negatively influence students' attitudes and knowledge about sexuality in older adults (Ewen & Brown, 2012). It is worth highlighting that improving healthcare professionals' knowledge and attitudes in sexuality in older people should begin during their undergraduate training. There is a need for a review of current gerontology and human sexuality curriculum for health care or human services programs to address knowledge and attitudes on this matter (Ewen & Brown. 2012).

This review further suggests that effective sexuality education intervention and support from the workplace provides a great opportunity for the improvement of healthcare professionals' knowledge and attitudes. However, for many healthcare professionals participating in the included studies, training related to sexuality is not often provided, particularly at the workplace, because education related to sexuality in older adults is not being accounted for in aged care services (Shuttleworth et al., 2010) or clinical settings. Participants such as OTs highlighted that addressing sexuality in acute settings would be impractical as sexuality does not cause immediate effects to physical illness (McGrath & Lynch, 2014), but Thy et al. (2019) and Gewirtz-Meydan et al. (2019) argue that healthcare professionals in all settings should be encouraged to understand the relevant information of sexuality in older

people as sexual desire and intimacy are basic human rights (World Health Organisation, 2006). Promoting awareness of the importance of staff attitudes about residents' rights to express sexuality and supporting education and training could improve staff stereotypes and bias (Heron & Taylor, 2009).

Health professionals who were males and older with more years of working experiences, possessed permissive attitudes and better knowledge in some studies (Chen et al., 2017; Flaget-Greener et al., 2015; Helmes et al., 2012; Lee & Yoo, 2016; Mahieu et al., 2016). Unlike other studies where younger professionals were more likely to keep up with current knowledge on sexuality in older people (Evangelist et al., 2019), have fewer ageist beliefs, especially if they had contacts with older people e.g., grandparents (Gewirtz-Meydan et al., 2018), and be open-minded and keen to pursue topics regarding the older LGBTI community (Hardacker et al., 2014).

There are insufficient policies and procedures to address sexual expression management (Syme et al., 2016) and limited to no regulation for ageing related sexuality education as part of compulsory professional development in healthcare settings. It is important that healthcare professionals (in any area of profession), who are involved in the caring for older people, understand that sexuality and intimacy are basic human needs, and everyone has equal rights of sexual expression including those living with dementia and identified as LGBTI individuals. This review clearly points out the significance of both curriculum and continuing education for healthcare professional is needed to support these expressions of sexuality and intimacy.

This review indicates ASKAS was the main assessment tool to evaluate healthcare professionals' knowledge and attitudes towards sexuality in older people and the SAID survey was additionally utilised to fill supplement components of dementia and LGBTI which are missing from ASKAS. This highlights that ASKAS has its own limitations in assessing

healthcare professionals' knowledge and attitudes towards sexuality in older people. In particular, the ASKAS lacks items about same-sex relationships with some of them phrased strictly for one gender and directly referring to heterosexuality (Gewirtz-Meydan et al., 2018; Helmes et al., 2012; Mahieu et al., 2016). Although ASKAS is a psychometrically sound measurement to assess knowledge of sexuality in ageing and is commonly used in many studies, Langer-Most and Langer (2010) indicated that the ASKAS may not effectively reflect current knowledge of sexuality in ageing, suggesting there may be construct validity issues. Furthermore, the ASKAS is a self-report questionnaire. It collects subjective data which may be misread or distorted by personal bias. The accuracy of measures needs to be considered, especially for attitude instruments (Snyder & Zweig, 2010).

Reliability from studies using ASKAS ranged from acceptable to good internal consistency estimates. Given the dated nature of the ASKAS, validity and reliability of estimates may be inaccurate, especially when the instrument has been heavily modified, translated, or combined with other items for study purpose (Flaget-Greener et al., 2015). In addition, the SAID survey contains questions about participants' attitudes towards sexuality in older people living with dementia and LGBTI individuals, but the lack of established reliability as noted from this review raises question about the appropriateness in the use of this instrument. Only a small number of studies included in this review has used the SAID survey. Our review highlights that both ASKAS and SAID are either outdated or have its shortcomings. Hence, there is a need for the development of an appropriate assessment tool assessing healthcare professionals' knowledge and attitudes towards sexuality in older people living with/(out) dementia and those identified as LGBTI individuals.

Implications

Besides the need for a tool to better assess knowledge and attitudes, opportunities for education and training should focus on human sexuality in ageing and people living with

dementia to improve understanding of sexuality in older people including those living with dementia and LGBTI individuals.

Strengths and Limitations

The key strength of this review is the first integrative review that distinguishes and focuses solely on healthcare professionals in all care settings to provide a comprehensive understanding of healthcare professionals' knowledge and attitudes, including assessment tools used, towards sexuality in older people living with/(out) dementia and those identified as LGBTI individuals. Despite its strengths, this review had several limitations that should be acknowledged. Firstly, there are a limited number of studies on this topic that are specific to healthcare professionals. Many potential studies included participants (e.g., personal care workers and students) which did not meet our definition of healthcare professionals and had to exclude them from this review. Although all included studies had healthcare professionals in their sample, the diversity of healthcare professionals and health care settings in this review are unbalanced. The majority of healthcare professionals in this review were nurses in aged care/long-term care. Therefore, this potential bias limits the generalisability of results from this review. Secondly, gender, small sample size and low response rates of the included studies may also have introduced bias, impacting the findings and interpretations of the included studies. Lastly, the limitations of ASKAS and SAID (i.e., dated with psychometric issues) create concerns about how study results can be interpreted. These issues highlight the paucity of robust research investigating healthcare professionals' knowledge and attitudes about sexuality in older people living with/(out) dementia and those identified as LGBTI individuals. Large samples, national wide research using well-developed, psychometrically sound assessment tools are needed in the future.

Conclusion

This integrative review provides an overview of current studies on healthcare professionals' knowledge and attitudes about sexuality in older people living with/(out) dementia and those identified as LGBTI individuals by examining them critically. This review revealed there is a vital need to enhance professional development opportunities, increase workplace support for understanding and responding to sexuality in older people living with/(out) dementia and those identified as LGBTI. Furthermore, this review revealed that current assessment tools of knowledge and attitudes toward sexuality are inadequate. Future research should focus on the development and evaluation of professional development training of human sexuality and sexual rights. Clear and relevant policy and guidelines to promote sexuality in older people living with/(out) dementia and those identified as LGBTI individuals is urgently required in clinical and community settings. Lastly, there is clear need for an updated, robust, and comprehensive assessment tool for assessing knowledge and attitudes about sexuality in older people, including the components of dementia and concerns related to LGBTI. Without a reliable and valid instrument, it will be difficult to evaluate the effectiveness of educational interventions and policy changes designed to improve knowledge and attitudes toward sexuality in older people living with/(out) dementia and those identified as LGBTI.

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Table 1

Description of the studies selected in the IR

Author(s)/ Year & country	Study Aim	Study Design	Study Setting	Sample	Data Collection Method	Main Findings	Quality Assessment
Bauer et al. (2013) AU	To increase residential aged care nurses' knowledge and improve attitudes towards older people's sexuality via an education intervention	Quasi-experimental design	Two regional health services in Australia	Registered Nurses (RNs), Enrolled Nurses (ENs)/licensed practical nurses (n=112)	• Self-administered questionnaires • 26 attitudinal items from Ageing Sexual Knowledge and Attitudes Scale (ASKAS) • Eight items from the Staff Attitudes about Intimacy and Dementia Survey (SAID) survey	**ASKAS attitudes scores:** • ASKAS attitudes scores were between 29 and 76 (M=54.21; SD=9.724; range=29-76). Lower scores indicate more positive attitudes (total attitudinal scores ranged from 26 to 130). • The themes of 'staff attitudes regarding sexuality in institutions', 'staff views on education and the aged' and 'staff considering their own relative in care' had lower scores compared with other themes. **SAID survey scores:** • The scores for the statements related to dementia-specific items from the SAID survey ranged from 19 to 58. (Lower scores indicate more positive attitudes). • 58 out of 112 participants agreed to the statement related to homosexual relationships (Lower scores indicate more positive attitudes).	• Did not report the initial number of total potential participants. • Participants' previous education and trainings in sexuality in older people were not sought.
Chen et al. (2017) AU	To explore aged care staff's later life sexuality knowledge and attitudes about intimacy in people with dementia	Quantitative descriptive study	Two nursing homes in Australia	RNs/ENs (n=19)	• Self-administered questionnaires • ASKAS (35 Knowledge items and 26 attitudes items) • Eight items from SAID survey	**ASKAS knowledge scores:** • ASKAS knowledge scores ranged from 13 to 31 (M=22.8; SD=4.69). RNs/EENs knowledge score (M=25.26; SD=4.01). (Higher scores indicate better knowledge levels). **ASKAS Attitudes scores:** • ASKAS attitudes score for RNs/ENs ranged from 43 to 101. **SAID survey scores:** • Eight items score for RNs/ENs ranged from 17 to 32.	• Small sample size. • Possible gender bias.

Cook et al. (2017) NZ	To analyse the accounts of staff, family and residents to advance ethical insights into intimacy and sexuality in residential care	Proof-of-concept study	Aged care facilities under a national aged care organization	RN (n=1)	• Semi-structured interview	**RNs' responses towards intimacy and sexuality in RAC:** • RNs felt responsibility to mediate to ensure residents' intimacy activity in workplace is ethically acceptable. • RNs advocated that the ultimate purpose was to ensure residents' well-being. • Understanding people's need of affection was an important aspect to acknowledge.	• Met MMAT criteria.
Evangelist et al. (2019) BRAZIL	To evaluate the knowledge and attitudes of Family Health Strategy (FHS) nurses regarding sexuality in old age.	Cross-sectional, exploratory, descriptive quantitative study	FHS of the city of Sobral-CE	Nurse practitioners (n=56)	• Self-administered questionnaires • The Brazilian version of ASKAS	**ASKAS Knowledge scores:** • The individuals presented a mean score of 29.95 in the knowledge items, ranging from 20 to 60, which indicates they have good knowledge about sexuality in old age. **ASKAS Attitudes scores:** • The participants had a mean score of 27.14 in attitudes items, ranging from 8 to 40, which indicates participants held conservative attitudes about sexuality in older people. • The participants had difficulty approaching this topic of sexuality because of embarrassment or personal beliefs which shows gaps in academic and professional training. No association between socio-demographic factors, professionals' profile and the attitude of these professionals.	• Met MMAT criteria.
Flaget-Greener et al. (2015) USA	To examine predictors of practicing psychologists' attitudes to and assessment of the sexual health of older adults.	Quantitative descriptive study	Not reported	Practicing psychologists of the members of American Psychological Association (APA) (n=119)	• Web-based self-administrated questionnaires • 16 (Six items had been modified) original ASKAS attitudinal items plus six items from Hillman and Stricker (1996).	**ASKAS Attitudes scores:** • Permissive attitudes toward older adults' sexuality (p=0.01) and greater sex education and training (p=0.001) were independently predictive of psychologists' willingness to assess sexual health.	• Did not have justification for only selecting participants with doctoral level education. • Used a significantly modified ASKAS. • Possible gender bias.

Gewirtz-Meydan et al. (2019) ISRAEL	To examine factors at the structural and individual levels that can facilitate discussion of sexual matters between physicians and older patients	Qualitative study	Various medical specialities	Physicians practicing as certified sexologists (n=15)	• In-depth interview	**A need of increasing of Knowledge:** • Importance of increasing the knowledge of physicians and medical students regarding sexuality in later life by providing courses, lectures, workshops and conferences. • Enhancing knowledge may not provide physicians with the full skill set needed to treat sexual dysfunction but it will raise awareness and the comfort necessary to assess the sexuality of older people.	• Met MMAT criteria.
Hardacker et al. (2014) USA	To develop a six-module curriculum of nurses' health education about LGBT elders (HEALE) cultural competency	Quesi-experimental study	Hospital, academic centres, community-based clinics and nursing homes from 23 locations in Chicago and surrounding areas.	RN/BSN (n=259), MSN (n=74), LPN (n=35), CAN (n=98). Each module participants: M1: n=848 M2: n=671 M3: n=619 M4: n=584 M5: n=592 M6: n=537	• Self-administrated questionnaires • Self-developed questionnaires	**Knowledge about LGBT elders:** • The knowledge ranged from mean baseline scores 73.5 (SD=20.9) in Module One to 55.8 (SD=18.8) in Module Six. • Baseline knowledge score was higher in Module one than other Modules which suggested participants were more acquainted with the introductory information but less familiar with clinical modules and subject-specific modules. • Participants in nursing home/home health-care settings had lower pre-test scores than those in hospital/educational settings.	• Did not report the initial number of total potential participants. • Did not report response rate in each module completion. • Possible gender bias.
Helmes et al. (2012) AU	To evaluate health professional educators' levels of knowledge and attitudes towards to sexuality in older people	Quantitative descriptive study	114 faculties (e.g. Medical, nursing, occupational therapy etc.) from universities in Australia, New Zealand, and South Africa	University lectures (n=364)	• Self-administrated questionnaires • ASKAS (35 Knowledge items and 26 attitudes items)	**ASKAS Knowledge scores:** • Total ASKAS knowledge mean score was 24.5 (SD=4.58). • Older educators held more knowledge then younger educators. • The level of knowledge did not differ based on educators' level of education obtained. • Those with greater teaching experience had better knowledge of sexuality in older people. • Some physicians and psychologists held higher levels of knowledge than some nurse educators. **ASKAS attitudes scores:** • Total ASKAS attitudes mean score was 42.4 (SD=12.3).	• Low response rate. • Possible gender bias. • Small sample size for each profession.

							• Older participants held more permissive attitudes towards to sexuality in older people. • Social workers from South Africa and Australia held more liberal attitudes than South African nurses.	
Hughes et al. (2015) USA	To assess knowledge of ageing sexuality and adequacy of formal sexual health education in a sample of U.S. physicians and nurse practitioners (NPs) in primary care.	Cross-sectional study	Primary care settings	n=278 (Physicians= 164 & Nurse practitioners =114)	• Self-administered survey. • 35 knowledge items from ASKAS	**ASKAS knowledge score:** • Total knowledge Score ranged from 45 to 73 (M=54.5; SD=5.5). • About 84% of participants had a good to moderate level of knowledge. About 1.1% of the participants held fair knowledge.	• Low response rate. • Possible gender bias.
Joan et al. (2009) AU	To report Nurse Manager perceptions regarding residents' rights, policies and factors that facilitated or constrained sexual intimacy.	Qualitative pilot study	Five central Queensland aged care facilities	Senior nurse managers (NMs) (n=5)	• Semi-structured interview	**Perceptions:** • Participants' defined sexual intimacy as more than sexual penetration including physical and non-physical contact. • Education and training could improve stereotypical or judgemental attitudes. • Education and training do not appear to be a fully planned and proactive program, unless an incident had happened or come to NMs' attention.	• Met MMAT criteria.
Jones et al (2016) AU	To increase knowledge and improve attitudes of staff towards the expression of sexuality by people living with dementia in RACFs via an e-Learning education intervention	A sequential mixed methods design (experimental study and qualitative interview)	Low and high care facilities for people with dementia	n=42 (RNs=21.4%; ENs=7.1%)	• Online self-directed questionnaire • Semi-structured interview • ASKAS (35 Knowledge items and 26 attitudes items) • SAID survey (20 items)	**ASKAS Knowledge scores:** • RNs' knowledge scores from ranged 40 to 101 (M=55.67; SD=19.0), and ENs/EENs' knowledge scores ranged from 48 to 71 (M=58; SD=14). **ASKAS attitudes scores:** • RNs' attitudes scores ranged from 32 to 94 (M=44.78; SD=19.82). • ENs/EENs' attitudes scores ranged from 32 to 80 (M=56.67; SD=24.02). **SAID survey scores:** • RNs' scores ranged from 29 to 61 for SAID survey (M=38.78; SD=9.68). • ENs/EENs' scores ranged from 32 to 63 for SAID survey (M=49.33; SD=15.82).	• Met MMAT criteria.

Lee et al (2016) KOREA	To investigate the education needs for nursing regarding the sexuality for older people	Quantitative descriptive study	General hospitals and convalescent hospitals in two cities.	Nurses (n=231)	• Self-report questionnaire • The Korea version of ASKAS	**ASKAS Knowledge scores:** • Nurses' average score of sexual knowledge was 18.97 (SD=5.59). • 90.5% of nurses correctly answered on the item of 'Most men aged 65 or older are not capable of sexual behaviours. • Positive correlation between sexual knowledge and sexual attitude ($p<0.001$). **AKSAS attitudes scores:** • Attitudes score was moderate (M=39.03; SD=5.18). • Male nurses more accepting of sexual expression in older people than female nurses.	• Used a Korean version ASKAS which has been significantly modified. • Possible gender bias. • Can't tell the risk of nonresponse bias.
Mahieu et al. (2013) BELGIUM	to evaluate the content and face validity and internal consistency of the Dutch version of ASKAS	Quantitative descriptive study	Flemish nursing homes	Nursing staff (n=215)	• Self-report questionnaires • The Dutch version of ASKAS	**ASKAS knowledge scores:** • Mean knowledge score was 45 (SD=8.8), indicated moderate knowledge about later life sexuality as measured by the Dutch version of ASKAS-D3. **ASKAS attitudes scores:** • Attitudes score was between 26 and 106 (M=62.8; SD=17.7), indicated neutral or slightly positive attitudes.	• Used a Dutch version of ASKAS which has been significantly modified. • Small sample size • the assessment tool was only tested in Flemish nursing homes. • low response rate increased the risk of nonresponse bias.
Mahieu et al. (2016) BELGIUM	to investigate nursing staff's knowledge and attitudes towards aged sexuality.	Descriptive cross-sectional survey	Flemish nursing homes	Nursing staff (n=1166)	• Self-administrated questionnaires • The Dutch version of ASKAS	**ASKAS knowledge scores:** • Knowledge scores ranged from 26 to 78 (Mean= 47.6; SD=11.2) which indicated nursing staff's knowledge is limited. • More than half of the participants answered 13 out 26 knowledge questions correctly. • Knowledge level was significantly lower for those who were (1) in a lower level work position, (2) attending a lower level of general education, (3) completing fewer	• Used a Dutch version of ASKAS which has been significantly modified. • Low response rate.

							continuing education courses in caring older people, (4) self-identified as being Muslim, (5) younger participants, (6) limited amount of work experience in general or in caring for older people. (7) Nursing home geographic location also seemed to have an effect on the level of knowledge. **ASKAS attitudes scores:** • Attitudes scores ranged from 25 to 134 (M=63.5; SD=18.5). Participants held positive attitudes towards to later life sexuality. • Conservative attitudes were strongly associated with (1) a lower level work position, (2) lower educational level, (3) higher religiosity self-rating, (4) self-identified Islamic/Muslim affiliation, (5) younger age, (6) fewer years of work experience in general or in caring for older people and (7) nursing home locations seemed to have an impact on participants' attitudes.	
McGrath et al. (2014) IRELAND	to explore occupational therapists' (OTs) perspectives on addressing sexuality in the context of rehabilitation services	Qualitative exploratory study	Rehabilitation services, primary care services and hospital services in Ireland	Occupational therapists (OTs) (n=22)	•	Focus groups	**Perceptions:** • Social-cultural expectations relating to sexuality which affect OTs' decisions on whether to address sexuality with their older clients. • Perceived competence and confidence to address sexuality. • OTs tended to prioritize resources. For example, addressing sexuality in acute settings was an unrealistic option as sexuality was not immediately relevant to practice.	• Met MMAT criteria.
Shuttleworth et al. (2010) AU	To provide an overview of the ways in which senior management perceive sexuality to be an	Qualitative study	Aged care Services in three states.	Director or Deputy Director of Nursing or Care manager (n=198)	•	Semi-structured telephone interviews	**Perceptions:** • More than nine in ten participants acknowledged the sexual needs of their residents and others expressed uncertain or negative attitudes and responses among	• Met MMAT criteria.

	issue for RACFs and the state of the current policy and training landscape.						their residents. • 95% of participants mentioned societal beliefs and attitudes influenced aged care workers' responses.	
Syme et al. (2016) USA	To conduct a qualitative needs assessment of Directors of Nursing regarding challenges and recommendations for addressing sexual expression and consent	Interpretive qualitative study	Long-Term Care (LTC) facilities	Directors of Nursing from National Association of Directors of Nursing in LTC. (n=20)	•	Semi-structured interviews via telephone	**Attitudes:** • All participants supported sexual expression in LTC. • More importantly, there is a need to address sexual expression and consent more openly in LTC which has been neglected largely because of issues of stigma and legal worries.	• Met MMAT criteria.
Thys et al. (2019) BELGIUM	To better understand how nurses experience and react to intimate and sexual expressions of nursing home residents	Ground theory	85 nursing homes in Flanders	Nurses (n=15)	•	Semi-structured interviews	**Nurses' responses:** • Nurses dealt with residents' sexuality and intimacy in individual way. • Nurses' reaction towards sexuality and intimacy included three categories: active facilitation, tolerance and termination. • Nurses' personal experiences, closeness of the nurse-resident relationship, ethical complexity of dealing with dementia and institutional culture are the factors that influence nurses' reaction towards residents' sexual expression.	• Met MMAT criteria.
Venturini et al. (2018) BRAZIL	To analyse how the nursing team performs towards sexuality in the daily lives of institutionalized elderly women	Qualitative descriptive study	A nursing home with 198 elderly women in the southern region of Brazil	Nursing professionals (n=18)	•	Semi-structured interview	**Nursing professionals' reactions:** • Knowledge, experiences and understandings can become an important barrier to obtaining a normalised view of sexuality. • Participants identified expressions of sexuality from humour to direct repressive actions.	• Met MMAT criteria.