

PSYCHOLOGY

Mapping the Perceived Sexuality of Heterosexual Men and Women in Mid- and Later Life: A Mixed-Methods Study



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ABSTRACT

Introduction: There is currently limited research that examines the meaning of sexuality at midlife and later life.

Aim: This study investigates how heterosexual men and women in mid- and later life perceive their sexuality and the factors that influence it.

Methods: Group concept mapping was used to produce a conceptual map of the experience of sexuality for heterosexual adults ages 45 years and above. Group concept mapping data were collected using 6 open-ended survey questions that asked about sexuality, intimacy, and desire. Thematic analysis was used to examine how participants perceived their sexuality to have changed as they aged. Thematic analysis data were collected using a single open-ended survey question.

Main Outcome Measure: Statements generated from 6 of the open-ended survey questions were rated by participants using a 5-point Likert scale for how important participants felt that each statement was to themselves personally. Participants responses to the seventh open-ended survey question were examined using thematic analysis to understand whether participants felt that their sexual experiences had changed over time and, if so, how they had changed.

Results: Eight themes were identified across the different phases of group concept mapping. These were, in order of importance, partner compatibility, intimacy and pleasure, determinants of sexual desire, sexual expression, determinants of sexual expression, barriers to intimacy, sexual urges, and barriers to sexual expression. Seven areas of change were identified in terms of perceived changes to sexuality with age. These included changes to perspective, relationship dynamics, environment, behavior, body/function, sexual interest/desire, and sexual enjoyment.

Conclusion: The results highlight the prioritization of interrelationship dynamics in mid- and later life sexuality over sexual functioning and sexual urges. These findings may facilitate the development of new perspectives on how sexuality is experienced in the later years and provide new avenues for intervention in situations where sexual problems arise. **Macleod A, Busija L, McCabe M. Mapping the Perceived Sexuality of Heterosexual Men and Women in Mid- and Later Life: A Mixed-Methods Study. Sex Med 2019; 8:84–99.**

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Keywords: Sexuality; Heterosexuality; Aging; Psychology; Mixed-Methods Approach

INTRODUCTION

Sexuality is an integral and constantly changing part of human experience.^{1–4} Research indicates that sexual expression is still desired by older adults and that they still consider themselves to be sexual beings.^{5–7} However, as people age, the quality of sexual

experiences becomes increasingly more important than their frequency.^{8–10} This change indicates that the current emphasis of research and medicine on the maintenance or re-establishment of “youthful” sexual functioning and frequency of sexual behavior in later life may not accurately reflect the sexual priorities of older adults.¹¹ The absence of a clear and consistent definition of sexuality in mid- and later life, however, makes it difficult to determine the actual sexual wants, needs, and experiences of older adults.

Current approaches to understanding sexuality in the later years often imply that declines in sexual activity frequency and sexual functioning are problematic side-effects of the aging process.^{12–14} In line with this assumption, much of the quantitative later-life sexuality research has focused on sexual activity

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frequency,^{15–17} sexual dysfunction prevalence,^{15,18} and the impact that changes in sexual functioning have on the sex lives of older adults.^{19–21} This research has been valuable in advancing our understanding of sexual dysfunction and for identifying how sexuality in mid- and later life correlates with a broad range of biological, psychological, social, and environmental factors. However, this approach may promote an overly biomedical view of sexuality to the exclusion of other data and risks influencing the interpretation of results so that the presence of sexual dysfunction and decreases in penile-vaginal intercourse frequency become evidence of an unsatisfactory sex life, despite evidence to the contrary.^{2,3,9–11,22}

In contrast, qualitative studies often highlight the importance of intimacy, warmth, and closeness between partners as part of older adults' sexual experiences.^{2,3,9–11} For example, a study by Ménard et al²² asked men and women over the age of 60 in long-term relationships to describe their experiences of "great sex." In their descriptions, participants focused on the role of relationship dynamics, partner availability, openness to new experiences, and overcoming learned ageism in their experiences, as opposed to sexual activity frequency, intercourse duration, or sexual functioning capacity in a sexual encounter. These results suggest that the current tendency to pathologize any decrease in penile-vaginal intercourse (thus equating optimal sexual functioning with the presence of a satisfying sex life^{23–25}) may not accurately reflect the way that adults in mid- and later life perceive their own sexual experiences.

Despite evidence that the quality of sexual experiences is increasingly important to individuals as they age, there is still little research that explores what this means in terms of how sexuality is conceptualized by adults in the late stages of life.^{26,27} This suggests that crucial pieces of the sexuality puzzle may be missing in terms of how we understand sexuality in both mid- and later life and how we treat sexual and/or relationship problems. These gaps in our understanding have significant implications for understanding healthy sexuality in later life, the topics that researchers choose to focus on, and how researchers and health professionals understand the role of intimacy and non-penetrative sexual expressions in the sex lives of older adults.

To better understand how sexuality is conceptualized by heterosexual men and women in mid- and later life, it would be helpful to examine the sexual experiences of these adults in a broad, open-ended way. Because the experience of sexuality is highly personal, giving individuals the chance to describe these experiences in their own words allows for a greater depth of understanding of those experiences than a yes/no answer. Qualitative and mixed-method approaches, such as thematic analysis (TA) and group concept mapping (GCM), are often used to better understand the experiences or perspectives of individuals.²⁸

Group concept mapping is a mixed-methods, multiphase approach to understanding complex social phenomena and generating a conceptual framework of a topic by engaging

directly with the population under investigation.²⁹ GCM is an approach that can integrate differing viewpoints from individuals with various attitudes, experiences, and characteristics.²⁹ As such, GCM is well suited to examine heterogeneous populations such as heterosexual men and women over the age of 45.

Thematic analysis is a qualitative methodology that can be used to examine whether any underlying patterns are present in how a population discusses a topic of interest.³⁰ Because GCM produces a conceptual map of how ideas interrelate rather than identifying thematic patterns in responses across a sample population, TA is a more appropriate methodological approach to uncovering similarities within groups.

This paper aims to use the voices of heterosexual adults ages 45 years and above to obtain a high-level understanding of how sexuality is conceptualized in mid- and later life, identify the level of importance placed on the different themes contained within this conceptualization, and provide further clarity with regard to whether adults in midlife and later life have perceived any changes to their sexual experiences as they have aged. In this study, GCM was used to produce a conceptual map reflecting the lived experiences of sexuality for heterosexual adults in mid- and later life, and TA was used to examine how heterosexual men and women in mid- and later life perceived changes to their sexuality over time. For this study, it was decided that individuals who do not identify as heterosexual would not be included and that sample subgroups (ie, men/women, midlife/later life) would not be examined separately, despite the presence of recognized differences in the sexual experiences for these cohorts. These investigations are currently beyond the scope of this study; however, it is hoped that the results of this study can help to provide a framework for future research in these areas in a way that helps improve the way that comparisons are made between different cohorts.

METHODS

This study was divided into 2 parts: a GCM exercise and a TA of perceived changes to sexuality with increasing age. The GCM utilized the thoughts and experiences of heterosexual adults age 45 and above to develop an overarching conceptual "map" of sexuality in mid- and later life that identifies

- The major themes that describe the sexual experiences of heterosexual adults 45 years and older and the determinants that influence these experiences
- The interrelationships among the themes found above
- How these themes are prioritized by heterosexual adults in mid- and later life

In the TA, patterns of perceived changes to sexuality and sexual experiences of heterosexual men and women in mid- and later life were investigated. The group mapping exercise is discussed first, followed by a discussion of the TA. Because GCM is not a widely used methodology, an overview of the

methodological approach is presented before presenting a description of the study methods.

Group Concept Mapping

Group concept mapping methodology was used to develop a conceptual model of sexuality in midlife and beyond. Because GCM is an iterative and intensive process of identifying similarities in how a concept is understood by a group of individuals,^{29,30} a decision was made to produce an overarching conceptual map of sexuality for both men and women across mid- and later life cohorts, with the expectation that further research would be needed to more closely examine differences between these cohorts. The process of GCM is comprised of 3 major phases: data collection, data structuring (sorting) and rating, and data analysis.²⁹ It is not necessary for the same participants to take part in all 3 phases nor is it problematic for the same participants to participate in all phases of the study,³¹ as the 3 phases are structured and analyzed independently of each other while remaining interconnected.

In the data collection phase, qualitative methods are used to understand experiences in relation to the topic of interest. The information is then consolidated to identify unique statements describing the concept of interest. In the second phase, the statements are presented back to participants, who are asked to sort the statements into themes by grouping the statements together in a way that they feel makes sense. Rosas and Kane³² recommended using between 20 and 30 sorters for optimal results in the statistical analysis phase. When the sorting task has been completed, participants are asked to reflect on the meaning of statements in each grouping and to suggest a short descriptive label that captures the essence of the grouping. Participants are then asked to rate the relative importance of each statement on a Likert-type scale. In the final phase, the data from the sorting and rating tasks are subjected to multidimensional scaling and hierarchical cluster analysis to identify clusters of related statements and to calculate the average importance of different clusters. The results of the quantitative analysis are then presented as a pictorial concept map of major themes (clusters) that describe the concept of interest and show interrelationships between the themes. Details of the GCM process utilized in the current study are presented in the following sections.

Phase 1. Data Collection

Participants. Forty participants took part in the data collection phase (43% men, 57% women; mean age = 65 years; SD = 7.97) (Table 1). Eligible participants were community-dwelling men and women 45 years of age or older who identified as heterosexual, who lived in Australia currently, and who could read and write English competently. The age cutoff was set at 45 years to align with cutoff points for midlife in the guidelines set by the United Nations.³³ No restrictions were set for current

relationship status, ethnicity, or the presence of any chronic health conditions. This was done so that a broad range of perspectives from the population of interest could be sampled, thus increasing the likelihood that the resultant model would be as broadly inclusive of the wider population.

Materials. Participants were asked to complete a survey that contained 7 open-ended focus questions (Table 1). The first 6 open-ended focus questions of this survey were used in phase 1 of the study. These 6 questions asked participants about their views on what sexuality, intimacy, and sexual desire meant to them currently; whether they felt that anything currently prevented them from being able to express their sexuality and what these obstacles were; what they felt was of particular importance to their own sexual expressions at present; and what they currently perceived to be erotic (Table 1). The questions were developed using the current literature on sexuality in mid- and later life as well as existing later life sexuality scales (eg, Geriatric Sexuality Inventory,³⁴ Senior Adult Sexuality Scales³⁵), the input of 2 psychologists with experience in the areas of sexuality and aging, and a biostatistician experienced in GCM. The 6 questions were designed to gather information about the way that individuals thought, felt, and interacted with their sexuality currently, including the experiences of desire and intimacy. No limits were set on the type or length of responses that participants could give in response to the focus questions. A comments section was included to allow participants to provide additional notes about topics of sexuality that they felt were not captured by the focus questions.

Procedure. Ethics approval was obtained for all phases of the study from the University Human Research Ethics Committee prior to phase 1 data collection. Informed consent for phase 1 was obtained prior to the start of the study. Prior to data collection, participants were provided with an informative letter that outlined the nature of the study, including information about the type of sensitive information collected, preservation of participant anonymity, data storage procedures, and how participants could withdraw from or raise concerns about the study. Participants were recruited from across Australia using a promotional strategy that relied predominantly on radio interviews, as well as media coverage in the form of news articles in printed news publications and online media. No incentives or tokens of appreciation were offered to participants for this study. Interested individuals were invited to contact the researchers directly, who then assessed the prospective participants against the eligibility criteria. During this initial assessment, participants were also queried about the preference for data collection method (online or via a postal pack). Participants who opted for the online data collection option were referred to the online survey tool Qualtrics software, Version 10.2016 (Qualtrics; Provo, UT). Participants who expressed a preference for a pen-and-paper format were sent a data collection pack that included instructions for how to

Table 1. Participant demographics across phase 1 and phase 2

	Phase 1			Phase 2		
	45–64 y of age, n (%)	65+ y of age, n (%)	Total	45–64 y of age, n (%)	65+ y of age, n (%)	Total
Men						
Marital status						
Single, never married	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Married without children	6 (86)	10 (100)	16	0 (0)	0 (0)	0
Married with children	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Divorced	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Separated	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Widowed	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Living with partner	1 (14)	0 (0)	1	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	5 (100)	5 (100)	10
Living arrangement						
Living alone	1 (14)	3 (30)	4	0 (0)	0 (0)	0
Living with partner	6 (86)	6 (60)	12	0 (0)	0 (0)	0
Living with children and/or parents	0 (0)	1 (10)	1	0 (0)	0 (0)	0
Shared accommodation with non-family	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	5 (100)	5 (100)	10
Country of origin						
Australia	6 (86)	10 (100)	16	0 (0)	0 (0)	0
Netherlands	0 (0)	0 (0)	0	0 (0)	0 (0)	0
New Zealand	1 (14)	0 (0)	1	0 (0)	0 (0)	0
Spain	0 (0)	0 (0)	0	0 (0)	0 (0)	0
United Kingdom	0 (0)	0 (0)	0	0 (0)	0 (0)	0
United States	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Mauritius	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	5 (100)	5 (100)	10
Women						
Marital status						
Single, never married	0 (0)	1 (11)	1	0 (0)	0 (0)	0
Married without children	8 (57)	6 (67)	14	0 (0)	0 (0)	0
Married with children	2 (14)	1 (11)	3	0 (0)	0 (0)	0
Divorced	2 (14)	0 (0)	2	0 (0)	0 (0)	0
Separated	1 (7)	0 (0)	1	0 (0)	0 (0)	0
Widowed	1 (7)	1 (11)	2	0 (0)	0 (0)	0
Living with partner	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	7 (100)	8 (100)	15
Living arrangement						
Living alone	3 (21)	6 (67)	9	0 (0)	0 (0)	0
Living with partner	9 (64)	3 (33)	12	0 (0)	0 (0)	0
Living with children and/or parents	2 (14)	0 (0)	2	0 (0)	0 (0)	0
Shared accommodation with non-family	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	7 (100)	8 (100)	15
Country						
Australia	8 (57)	6 (67)	14	0 (0)	0 (0)	0
Netherlands	1 (7)	1 (11)	2	0 (0)	0 (0)	0
New Zealand	0 (0)	0 (0)	0	0 (0)	0 (0)	0
Spain	1 (7)	0 (0)	1	0 (0)	0 (0)	0
United Kingdom	2 (14)	1 (11)	3	0 (0)	0 (0)	0
United States	2 (14)	0 (0)	2	0 (0)	0 (0)	0
Mauritius	0 (0)	1 (11)	1	0 (0)	0 (0)	0
Data unavailable	0 (0)	0 (0)	0	7 (100)	8 (100)	15

complete the data collection task, a data collection sheet, and a self-addressed reply-paid envelope. At the end of the survey, participants were provided with the contact details of relevant help organizations in case they found the experience of reflecting on their sexuality distressing.

The data were collected via open-ended survey responses. Responses from all participants across all questions were consolidated in a single Microsoft Excel 2016 spreadsheet (Microsoft Corporation; Redmond, WA). When multiple ideas were present in a response, these ideas were separated into single-idea statements. For example, a participant could have listed multiple things as being important in response to the question, "What kinds of things are most important to you in terms of sexual expression?" Each point listed was separated into a single-idea statement for coding. Each single-idea statement was then summarized using a single word by the first author (A.M.) to capture the core meaning of the statement. Each single statement summary was then used to produce a list of overarching themes. When a theme had been assigned to each item, all items were sorted using the identified themes and examined collectively by the 3 authors to identify redundancies within the themes. Redundancies were identified as any statement that shared the same meaning as another statement, as agreed upon by all 3 authors. After consolidation and removal of redundancies, the remaining unique statements were reviewed by the first author for correct spelling and grammar, and, where necessary, minor changes were made to improve readability prior to using the statements in the next phase.

Phase 2. Sorting and Rating

Participants. Twenty-five individuals took part in phase 2 (40% men, 60% women; Table 1). Because of an error in collection of demographic data, only sex and age cohort data were available for phase 2. Participants from phase 1 that wished to be contacted about future recruitment for the study were invited to take part in phase 2 via email, and new participants were recruited using radio and other media outlets. Due to the anonymous nature of the study, no information is available on how many participants from phase 1 also took part in phase 2. All eligibility criteria and recruitment approaches used in phase 1 were repeated in phase 2 (see phase 1 participants discussion, above).

Materials. Participants who chose to participate using a post pack were provided with a participant information letter, an instruction sheet, a set of statement cards (one card for each unique statement from the brainstorming phase), a set of blank envelopes, a rating task activity sheet, and a self-addressed reply-paid envelope. For online participants, the same information and tasks were presented in electronic form using the online survey tool Qualtrics software, Version 10.2016.

Procedure. Informed consent for phase 2 was obtained prior to commencement of the study. Participants were asked to complete a sorting task followed by a rating task. In the sorting task, participants were presented with the unique statements identified in phase 1 and asked to arrange statements into groups of items that they felt were similar in meaning. Participants were directed to create between 3 and 15 groups of statements and were advised that no group should contain only 1 statement, and no group should be made up of items deemed "miscellaneous." The decision to request between 3 and 15 groups was made to optimize nuanced representation of sexuality in midlife and beyond while keeping group numbers manageable for participants. Participants were requested to have more than 1 item in each group to encourage them to think about the similarities and differences in the ideas captured in statements. The decision to request that no group contain only a single item was made to encourage participants to think about how each statement interconnected with others. No other instructions were provided to participants in terms of how to sort the statements. After participants had sorted all statements into groups, they were directed to name each of the groups. Participants were asked to provide names that best represented the overall theme of statements in each of the groups, but no further direction was given in terms of naming conventions. The participants who completed the sorting task by post were instructed to place each group of statements into a separate envelope, seal the envelope, and write the label describing the group of statements on the envelope before posting the results back to researchers. After completing the sorting task, participants were asked to rate each statement on how important they felt that statement was to themselves personally on a 5-point Likert-type scale (1 = not at all important, 2 = slightly important, 3 = moderately important, 4 = very important, and 5 = extremely important). Again, no token of appreciation or financial incentive was offered to participants.

Phase 3. Statistical Analyses

The sorted data were used to produce individual sort matrices for each participant in a Microsoft Excel 2016 spreadsheet. The sort matrices had the number of rows and columns equal to the number of statements used in the sorting task and had a 1 for any pair of items that were sorted in the same group by a given participant and 0 for any pair of items that were sorted into separate groups. The individual sort matrices were then combined to produce a composite dissimilarity matrix for the entire sample. A dissimilarity matrix calculates a numerical value that represents the amount of (dis)similarity between each statement using the chi-square test of equality for 2 sets of frequencies. In a dissimilarity matrix, smaller numbers indicate that statements appear together in sort groups more often, and larger numbers indicate that statements do not often appear together in sort groups.

The composite dissimilarity matrix was then imported into SPSS Statistics 23 (IBM; Armonk, NY) and used to perform multidimensional scaling (MDS) analysis. This produced a set of Euclidean distances that provided coordinate information about the relative spatial distance on a 2-dimensional plane between statements based on how often the statements were sorted together by the study participants. Results of the MDS were represented as a bivariate point map that showed the frequency with which statements were sorted together by participants. Items that were sorted together more often were distributed more closely together on the bivariate point map and produced smaller squared Euclidean distances. Thus, similar items appeared closer together on the point map, and less similar items appeared farther apart on the point map.

The MDS distances were used as input into a hierarchical cluster analysis (HCA) conducted using Ward's algorithm in SPSS Statistics 23. HCA is preferred in GCM over other common clustering approaches (eg, principal component analysis or exploratory factor analysis) because it aligns more readily to the results of MDS and is less likely to produce overlapping themes or clusters.³⁶ The goodness of fit of MDS solutions was assessed with Kruskal's stress formula 1. Stress values represent how well the distances generated in MDS correspond to the values present in the dissimilarity matrix. A fair correspondence between the derived MDS solution and the initial dissimilarity matrix is consistent with stress values equal to .10 or lower, and a good correspondence is consistent with stress values equal to .05 or lower.³⁷

The objective was to group items into clusters of conceptually similar statements. By using HCA, statement clusters that are most reflective of the groupings formed by participants are mathematically identified, thus minimizing researcher bias in the identification of themes. Cluster solutions with the number of clusters ranging from 3 to 15 were examined for how well items within a cluster appeared to represent a single theme. The decision to examine only solutions with 3 to 15 clusters was made to align with directions given to participants during the sorting task to sort statements into between 3 and 15 groups. Each solution was examined jointly by the authors to determine whether the clustering of statements produced meaningful themes. Solutions were discarded if one or more of the following conditions were met: (i) 1 or more clusters within the solution contained only a single item, (ii) the solution contained conceptually overlapping clusters, or (iii) items within at least 1 cluster did not form a conceptually cohesive theme. The preferred cluster solution was the solution that optimally identified nuanced groupings of interpretable statements without repetition or redundancies among the identified clusters, as determined by the authors. A final cluster name was chosen using cluster names suggested by participants during the sorting task in conjunction with discussion of identified themes within each cluster by the author team. Once a cluster name was chosen, theme definitions were developed for each cluster that were representative of the

type of statements captured within the cluster and other statements that would be considered conceptually similar.

Data collected from the rating task were used to calculate mean rating scores for each statement across all participants. The statement ratings were then used to produce mean importance ratings for each cluster. Following this, the final named cluster map, cluster definitions, and cluster importance ratings were presented to participants for review via the project newsletter. Participants were encouraged to contact the research team via e-mail to provide feedback on whether they felt that the results represented their own experiences of sexuality. No participants chose to return written feedback; however, 4 participants returned feedback via phone. The responses from participants confirmed that the themes and ratings presented were a good representation of their own thoughts and experiences in relation to sexuality in midlife and beyond. For example, a female participant age 74, commented that the model "covered most areas well."

Thematic Analysis of Perceived Change to Sexual Experience with Increasing Age

Thematic analysis was used to examine whether participants perceived a change in their sexual experiences as they aged. TA allows researchers to use a systematic and iterative approach to identify patterns or repeating themes within the collected data.^{30,38} In this study, an inductive approach to TA was used whereby the identification of themes was data driven rather than theory driven.³⁰

Participants

Refer to participant data in the earlier section on phase 1 of GCM.

Materials

Data were collected using a single open-ended question included in the survey during the GCM phase ("Do you feel that your sexuality has changed over time, and if yes, how is it different?"). This question was designed to allow participants to describe changes to their sexuality over time in their own words. No instructions were provided in terms of how participants should respond to this question.

Procedure

The data were collected via open-ended survey responses. Responses from all participants were consolidated in a single Microsoft Excel 2016 spreadsheet. Responses were first examined for whether participants identified a perceived change in their sexual experiences compared to their earlier years. Where changes were detailed by participants, each idea was separated into a single-idea statement. These statements were then read and re-

read (A.M.), and a code list was developed using an axial approach that reflected the main themes discussed in the statements. Statements were then re-examined using the code list, and final coding of the data was agreed upon by the author team. When the key themes relating to any changes to the sexual experiences of participants had been identified, responses in their original form were re-examined (A.M.) to develop a table of themes. Emergent themes were reviewed by the author team in meetings at regular intervals throughout the thematic analysis process and again at the end of the TA to ensure agreement on the identified themes and confirm that all pertinent topics were captured.

RESULTS

Group Concept Mapping

A total of 708 single-idea statements were generated using the responses to the focus questions. After removing repeated ideas, 75 unique statements were identified. These statements represented both attitudes and experiences relating to sexuality, as well as determinants that influence sexual experiences. Statements encompassed a range of sexual behaviors, sexual attitudes, sexual and relational preferences, and barriers to sexual expression. A full list of unique statements can be found in [Table 2](#). The 75 unique statements formed the basis of the sorting and rating tasks in phase 2. Sorting data were combined in a dissimilarity matrix and a set of Euclidean distances was generated using multidimensional scaling (Kruskal's stress value = .07). Kruskal's stress values indicated a fair correspondence between the raw data and distances between points on the bivariate point map.

Hierarchical cluster analysis produced a shortlist of cluster solutions that contained 7, 8, or 9 clusters for examination. Solutions with more than 9 clusters were discarded because they contained conceptually redundant clusters or included at least 1 cluster with only 1 item. Solutions with fewer than 7 clusters were discarded due to a lack of conceptually cohesive themes in some of the clusters. After examination of shortlisted solutions, the 7-cluster solution was also rejected because it contained a cluster that was not clearly interpretable. Consequently, the preferred cluster solution was identified as the 8-cluster solution because it contained no single-item clusters and had no conceptually overlapping clusters, and statements in each cluster formed cohesive, interpretable themes. A cluster map of the 8-cluster solution can be found in [Figure 1](#). The 8 clusters were named based on identified themes within each cluster: partner compatibility, intimacy and pleasure, determinants of sexual desire, sexual expression, determinants of sexual expression, barriers to intimacy, sexual urges, and barriers to sexual expression.

Cluster Definitions

Sexual Expression. Seven statements formed the sexual expression cluster and reflected the different ways individuals

may express their sexuality. This cluster encompassed statements that referred more specifically to physical acts or partnered activities as a way of engaging with and expressing sexuality. Statements captured in this cluster included “[other than sexual intercourse, I also express my sexuality through] visual stimulation” and “[to me, sexuality means] having intercourse.”

Sexual Urges. Seven statements formed the sexual urges cluster and reflected the urges that underlie sexual expressions. This cluster included statements relating to sexual desires, physical sexual urges, and other forms of sexual expression. Statements captured in this cluster included “[other than sexual intercourse, I also express my sexuality through] fantasizing” and “[sexuality] is an underlying driving force that never goes away.”

Intimacy and Pleasure. The intimacy and pleasure cluster encompassed 23 statements and was the largest cluster of statements. Eighteen of these statements reflected the sexual experiences related to how an individual is intimate with others, and experiences of pleasure. Five statements within the intimacy and pleasure cluster reflected determinants that influence how an individual is intimate with others and their experiences of pleasure. Alternative solutions failed to separate this cluster into smaller clusters while retaining meaning in other clusters. The experiences captured in the intimacy and pleasure cluster encompassed both the ability and the need for affectionate, intimate, and some sexual behaviors, whereas statements that reflected determinants that influence sexual expression emphasized the quality of the intimate relationship and partner engagements, mutual trust, and mutual attraction. Statements captured in this cluster included “to be appreciated as a whole person is important to my sexual expression,” “[to me, sexuality and intimacy] are giving and receiving pleasure,” and “intimacy is sharing the things that are the most personal part of you.”

Partner Compatibility. Nine statements were grouped together to form the partner compatibility cluster. Statements in this cluster encompassed the determinants associated with feeling comfortable with and cared for by a romantic partner. It also included statements about being able to communicate with a partner and the acceptance and mutual respect between partners. Statements captured in this cluster included “feeling cared for and valued [is important to me in terms of sexual expression]” and “a sense of freedom of expression and appreciation of our differences [is important to me in terms of sexual expression].”

Determinants of Sexual Desire. Five statements were grouped together to form the determinants of sexual desire cluster, and they referred to factors associated with the experience or onset of sexual desire. Statements captured in this cluster included “[I can express my sexuality through] how I relate to someone in terms of making eye contact, touching them, how I

Table 2. Distribution of clustered statements and mean importance scores across identified clusters

Cluster	ID	Statement	Importance rating				Cluster mean (SD)
			Rating	Range	Mean	SD	
Partner compatibility	S2	A sense of freedom of expression and appreciation of our differences	V	2–5	4.00	0.83	4.37 (0.24)
	S6	Being able to communicate openly	V	3–5	4.62	0.56	
	S9	Compatibility with each other	V	1–5	4.07	1.14	
	S17	Feeling cared for and valued	V	2–5	4.37	0.83	
	S18	Feeling safe	V	2–5	4.33	0.87	
	S21	Freedom to be myself	V	2–5	4.22	0.93	
	S22	Friendship/positive regard for you and your partner	V	3–5	4.48	0.70	
	S54	Respect is important	V	3–5	4.70	0.54	
	S60	Someone whose mind and personality are attractive	V	3–5	4.55	0.57	
Intimacy and pleasure	S4	An emotional response to a physical need of touch	V	3–5	4.11	0.64	4.22 (0.31)
	S5	Anticipation for when we share those special moments together	V	3–5	4.07	0.72	
	S7	Being able to hold and be held	V	3–5	4.59	0.57	
	S11	Enjoying each other's bodies	V	3–5	4.44	0.64	
	S13	Expression of desire or interest	M	3–5	3.92	0.82	
	S24	General petting and intimacy	V	2–5	4.11	0.80	
	S25	Giving and receiving pleasure	V	3–5	4.37	0.68	
	S34	Knowing that my partner finds me attractive	V	1–5	4.07	0.95	
	S43	Mutual attraction and satisfaction	V	3–5	4.51	0.64	
	S44	Mutual trust and understanding	V	3–5	4.81	0.55	
	S50	Partner's smile	V	1–5	4.14	1.13	
	S51	Physical contact of some sort, hugging, holding hands, kissing	V	2–5	4.55	0.80	
	S53	Playful activities leading up to being intimate (eg, pats and hugs throughout the day)	V	3–5	4.25	0.81	
	S55	Romance	V	3–5	4.14	0.71	
	S56	Sensuality	V	3–5	4.18	0.68	
	S59	Sharing the things that are the most personal part of you	V	1–5	4.07	1.07	
	S61	Something that brings emotional satisfaction	V	2–5	4.33	0.73	
	S63	Speaking softly to each other is an important part of intimacy	M	1–5	3.44	1.21	
	S64	The ability to enjoy sexual activity	V	3–5	4.44	0.64	
	S68	To be appreciated as a whole person is important to my sexual expression	V	2–5	4.18	1.00	
S69	To be intimate with a particular person, with or without actual intercourse	V	3–5	4.29	0.66		
S70	To explore my sexuality with a particular person	M	1–5	3.59	1.30		
S71	Touching, kissing, and being attentive to the other person	V	2–5	4.40	0.79		
Determinants of sexual desire	S1	A feeling I have when I get a certain look, touch, or conversation from someone I find attractive	M	1–5	3.74	1.02	3.87 (0.26)
	S19	Finding another person attractive and physically appealing	M	1–5	3.81	0.96	
	S29	How comfortable in my body or how attractive I feel	V	2–5	4.03	0.80	
	S30	How I relate to someone in terms of making eye contact, touching them, how I speak to them and the words I use	V	3–5	4.22	0.69	
	S65	The atmosphere and surrounds	M	2–5	3.55	0.84	

(continued)

Table 2. Continued

Cluster	ID	Statement	Importance rating				Cluster mean (SD)
			Rating	Range	Mean	SD	
Sexual expression	S27	Having intercourse	M	1–5	3.62	1.07	3.42 (0.35)
	S38	Massage	M	1–5	3.07	1.07	
	S45	Nakedness	M	1–5	3.66	1.03	
	S47	Oral sex	M	1–5	3.29	1.40	
	S57	Sensual body movements	M	1–5	3.85	0.98	
	S73	Visual stimulation	M	1–5	3.51	1.08	
	S75	Watching my partner in the shower	S	1–5	2.88	1.25	
Determinants of sexual expression	S8	It is important that my partner is clean when expecting me to respond	M	1–5	3.18	1.44	3.22 (0.64)
	S23	Gender is important in terms of sexual expression	M	1–5	3.29	1.65	
	S26	Going along because of the other person's needs at the time	M	1–5	3.07	1.10	
	S28	Health and wellbeing	V	2–5	4.33	0.91	
	S31	I tend to "fly solo"	S	1–5	2.11	1.52	
	S42	Moral and privacy standards (eg, there is a time and a place to express your sexuality that is acceptable in our society)	S	1–5	2.70	1.32	
	S58	Sexual orientation and how you express or act upon your sexual feelings	M	1–5	3.14	1.56	
	S66	Through behavior and the way in which I present myself particularly in the company of the opposite sex	M	1–5	3.18	1.11	
Barriers to intimacy	S67	Time and opportunity for sex	M	2–5	3.96	0.93	2.84 (0.63)
	S10	Energy levels	M	1–5	3.37	0.92	
	S15	Fear of being hurt	S	1–5	2.51	1.45	
	S16	Fear of forming a new relationship	S	1–4	2.11	1.12	
	S41	Mood or mental state	M	1–5	3.37	1.44	
Sexual urges	S12	Enjoying erotic print and film media alone or with a partner	S	1–5	2.44	1.31	2.72 (0.31)
	S14	Fantasizing and thoughts	M	1–5	3.18	1.30	
	S20	Flirting	S	1–5	2.92	1.14	
	S33	It is an underlying driving force that never goes away	S	1–5	2.77	1.55	
	S37	Manual orgasm	S	1–5	2.77	1.39	
	S72	Urge for physical release of body fluids	S	1–5	2.62	1.47	
	S74	Voyeurism	S	1–5	2.25	1.31	
	Barriers to sexual expression	S3	Alcohol or drug use prevents me from expressing my sexuality	N	1–5	1.55	
S32		Illness or pain interferes with sexual expression	S	1–5	2.51	1.67	
S35		Lack of opportunity	S	1–5	2.33	1.35	
S36		Lack of suitable company	N	1–5	1.70	1.23	
S39		Medications	N	1–4	1.88	1.18	
S40		Mismatched libido with my partner	N	1–5	1.92	1.38	
S46		Not feeling the urge	S	1–5	2.51	1.28	
S48		Partner's illness and medical treatment	S	1–5	2.85	1.72	
S49		Partner's lack of interest or tiredness	M	1–5	3.29	1.51	
S52		Physical disabilities	S	1–5	2.44	1.57	
S62	Sometimes I do not want to express my sexuality	S	1–5	2.92	1.38		

M = moderately important; N = not at all important; S = slightly important; V = very important.

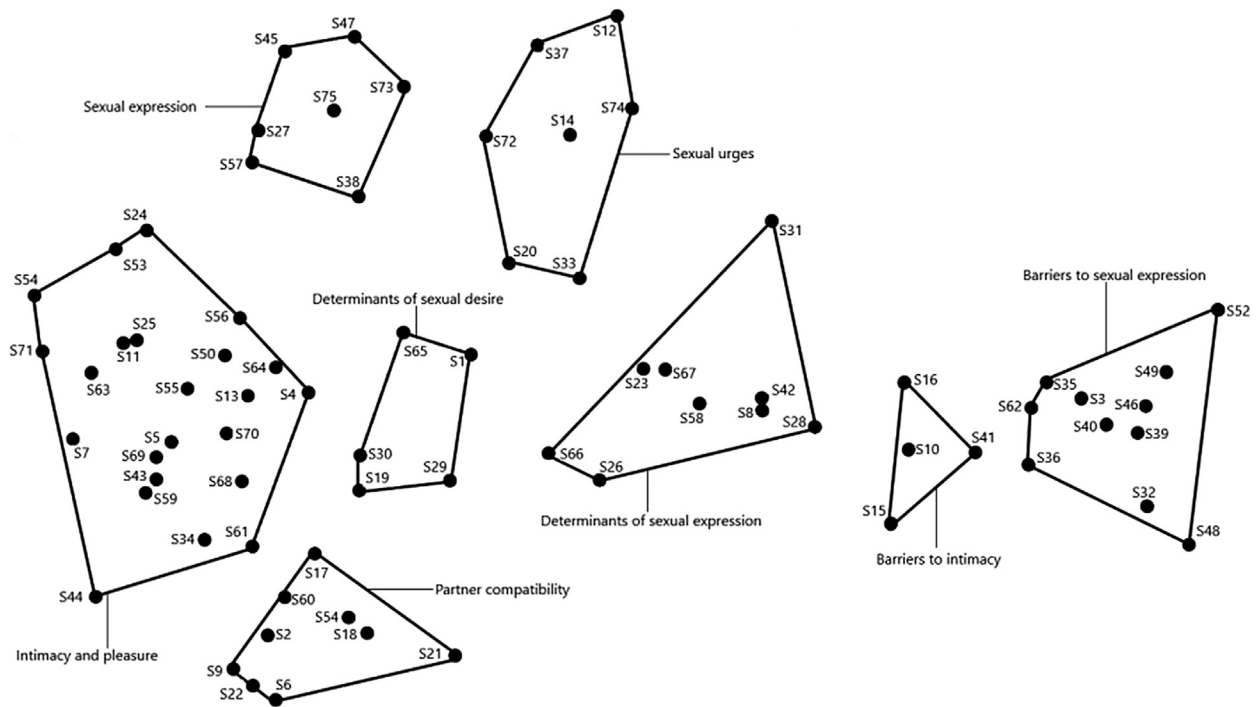


Figure 1. Map of 8 thematic clusters identified by group concept mapping.

speak to them and the words I use” and “finding another person attractive and physically appealing [is important to me in terms of how I express my sexuality].”

Determinants of Sexual Expression. Nine statements were included in the determinants of sexual expression cluster. These referred to the factors that influenced the way people thought about and expressed themselves sexually, their sexual standards, and the ways they engaged with others sexually. Statements captured in this cluster included “it is important that my partner is clean when expecting me to respond” and “moral and privacy standards [can prevent me from expressing my sexuality].”

Barriers to Intimacy. Four statements were grouped together to form the barriers to intimacy cluster. This cluster related to determinants that impinged upon an individual’s willingness to engage with another person on an intimate and/or sexual level. Statements captured in this cluster included “a fear of being hurt [prevents me from being able to express my sexuality]” and “energy levels [can prevent me from being able to express my sexuality].”

Barriers to Sexual Expression. Eleven statements were grouped together to form the barriers to sexual expression cluster. These related primarily to physical, medical, or social factors that act as barriers to sexual expression. Statements captured in this cluster included “illness or pain interferes with sexual expression” and “sometimes I do not want to express my sexuality.”

Cluster Proximity. Clusters were arranged on the bivariate point map as determined by MDS and HCA (see Figure 1). Clusters that were most proximal to each other included the partner compatibility and intimacy and pleasure clusters, the sexual expression and sexual urges clusters, and the barriers to intimacy and barriers to sexual expression clusters. Proximal clusters could be seen to share similar ideas. For example, the item “freedom to be myself” from the partner compatibility cluster is similar to, yet still distinct from, the item “to be appreciated as a whole person is important to my sexual expression” in the intimacy and pleasure cluster. Clusters that were located farther apart on the cluster map were less likely to share similar themes. For example, the barriers to sexual expression cluster had few similarities with the partner compatibility cluster, and these two clusters were found on opposite sides of the cluster map.

Cluster Importance. An overall importance rating for each cluster was produced by using the mean importance rating scores of all statements included within the cluster (Table 2). The partner compatibility and intimacy and pleasure clusters produced average importance ratings above 4 (very important); the determinants of sexual desire, sexual expressions, and determinants of sexual expression clusters produced average importance ratings above 3 (moderately important); and the barriers to intimacy, sexual urges, and barriers to sexual expression clusters produced average importance ratings above 2 (slightly important) overall by participants. No clusters produced

average importance ratings equal to 5 (extremely important) or below 2 (not important at all).

Thematic Analysis of Perceived Change to Sexual Experience with Increasing Age

Twenty-two participants stated that they had experienced changes to their sexuality over time, and 7 participants stated that they had not experienced any changes to their sexuality over time. Most participants that reported no change to their sexuality were women (71% women), and all participants that reported no change to their sexuality were in midlife. Eleven participants chose to not provide a response to this question. The changes discussed by participants encompassed 7 themes: changes to perspective, changes to relationship dynamics, environmental changes, behavior changes, physical changes, changes to sexual interest/desire, and increased sexual enjoyment. A summary of themes identified by age cohort and gender can be found in [Table 3](#).

Changes to Perspective

Changes to perspective were discussed by 22 participants. Changes to perspective were discussed equally between men and women but were discussed more frequently by individuals in later life (68% later life). Positive changes to perspective included a better sexual awareness, learning to accept each other's limitations, becoming more open-minded, overcoming old beliefs about sex being dirty and/or wrong, having fewer expectations for intercourse, expanding definitions of sexuality to include companionship and love, feeling a greater sexual freedom because there is no risk of unwanted pregnancy, becoming more relaxed in discussing sexual topics, and a greater focus on the quality of sexual experiences over quantity. Negative changes to perspective included feeling less attractive with age and feeling less confident about being able to express sexuality.

Changes to Relationship Dynamics

Fourteen participants discussed changes that related to their relationships. Changes to relationship dynamics were discussed equally between men and women and between those in mid- and later life. Positive changes included feeling like a more compassionate lover, changes in sexual activity and sexual activity frequency related to starting a new relationship, and an improvement in the quality or depth of connection with a partner. Negative changes focused on a mismatch in libido between partners.

Environmental Changes

Six participants attributed changes to their sexuality to changes in their environment. Environmental changes were discussed more frequently by women (83% women) but were discussed equally between those in mid- and later life. Specific

environmental changes included children moving out of the family home, partners having more time together after retirement, and increased privacy and/or an increase in the time available to think about or engage in sexual experiences. Almost all environmental changes were described positively. Only one participant stated that environmental factors negatively impacted on their sex life, but that person did not expand on what these environmental factors were.

Behavioral Changes

Thirteen participants discussed behavioral changes that largely reflected developing alternative forms of intimacy to gain sexual fulfillment without intercourse. Women were slightly more likely to discuss behavioral changes than men (62% women), and those in later life were more likely to discuss behavioral changes than those in midlife (85% later life). These changes included a focus on love and appreciation of each other and expanding the types of sexual behaviors in which they engaged in response to physical changes over time such as a reduction in erection rigidity. One participant discussed seeking out sex regularly after the breakdown of a long-term relationship, resulting in "more sex than ever."

Physical Changes

Sixteen participants discussed physical changes that had influenced their changed sexual experiences. Roughly equal amounts of men and women discussed behavioral changes (44% women). Individuals in later life were more likely to discuss behavioral changes than those in midlife (75% later life). Most of the physical changes discussed focused on a decrease in sexual functioning, issues with sexual expression because of medical or health barriers, and a change in the physical experience of sex. For example, several men reported a reduction in erection rigidity. Several participants also commented on physical impediments to certain sexual positions.

Change to Sexual Interest/Desire

Sixteen participants reported a change to their sexual interest or desire. Changes to sexual interest or desire were discussed slightly more often by women compared with men (63% women), but were discussed roughly equally between those in mid- and later life (44% midlife, 56% later life). For most participants, this change was a decrease in the intensity or frequency of desire. For many of these participants, a decrease in their desire did not mean the absence of desire altogether, although one participant reported a complete loss of desire.

Increased Sexual Enjoyment

Nine participants felt that they experienced a greater amount of sexual enjoyment now than they had in the past. Most of those reporting an increase in sexual enjoyment were women

Table 3. Sum totals of described changes to the experience of sexuality with age across gender and age cohorts

Theme	Midlife (M/F)	Later life (M/F)	Total (M/F)
No change	7 (2/5)	0 (0/0)	7 (2/5)
Changes to perspective	7 (3/4)	15 (8/7)	22 (11/11)
Changes to relationship dynamics	7 (2/5)	7 (4/3)	14 (6/8)
Environmental changes	3 (0/3)	3 (1/2)	6 (1/5)
Behavioral changes	2 (0/2)	11 (5/6)	13 (5/8)
Physical changes	4 (1/3)	12 (8/4)	16 (9/7)
Changes to interest/desire	7 (2/5)	9 (4/5)	16 (6/10)
Increased enjoyment	2 (0/2)	7 (2/5)	9 (2/7)

F = female; M = male.

(78% women) and those in later life (78% later life). These changes included a greater enjoyment of sexuality generally, a greater enjoyment of sexuality related to better emotional aspects of a relationship, and enjoying their body more in sexual engagements.

DISCUSSION

The use of a mixed-methods approach in this study allowed for the sexual experiences of heterosexual men and women 45 years of age and above to be examined in a broad, open-ended way. Group concept mapping helped elucidate how these men and women understood and prioritized their own sexuality and sexual experiences, as well as how they categorized these experiences in a way that was meaningful to them. Thematic analysis gave added clarity to whether or not heterosexual men and women in this life stage perceived a change to their sexuality as they aged and identified the different types of changes they had experienced. This discussion first explores the themes captured within the concept map, their relative importance, and the way they combine to form a new picture of sexuality in the later years of life before discussing how sexuality is perceived to change over time. This is followed by a discussion about how this new representation of sexuality in mid- and later life can offer further insight into how sexuality for heterosexual men and women in these life stages is understood and how it can help clinicians identify new avenues for improving the treatment of sexual and relationship problems.

The 8-cluster conceptual model generated in the study captured a broad range of experiences associated with sexuality and the different factors that influence them, and it highlighted the interpersonal elements of sexual experiences, their underlying drivers, and the different barriers to sexual expression experienced by heterosexual men and women 45 years of age and above. However, the way that ideas were grouped by participants indicated that much of what is known about sexuality in mid- and later life is not organized in a way that accurately reflects the way that older adults conceptualize their own sexuality and

sexual experiences. For example, the conceptual map highlighted the importance of interpersonal relationships in sexuality in mid- and later life (eg, partner compatibility and intimacy). This emphasis is consistent with research that shows that intimacy and relationships become more important to adults as they age^{2,39} but challenges the idea that intimacy is a separate but related construct.⁴⁰

In the proposed conceptual framework, intimacy and trust played a central role to the experience of sexuality and to sexual expression in mid- and later life. However, this greater relative importance placed on the partner compatibility and intimacy clusters over the barriers to sexual expression and sexual urges clusters challenges the assumption that penile-vaginal penetrative intercourse is the center-point to sexuality throughout the lifespan and that sexual problems stem primarily from physiological dysfunctions.^{11,41}

Although still considered somewhat important by the participants in the present study, sexual activity and intercourse were rated less important to their sexual experiences than partner compatibility or intimacy and pleasure. This questions the current research focus on sexual frequency and sexual functioning while supporting research that shows that the quality of sexual experiences becomes more important for older adults over time than the frequency with which they occur.^{8–10} This key difference also shows that an individual's sexual experiences are subject to change as partnership dynamics change over time, and the proposed concept map provides suggestions as to what factors may be associated with these changes. However, further research examining the interpersonal aspects of sexuality and their associated determinants is hindered by a lack of validated measurement tools that assess sexuality for older adults.⁴²

The importance of interpersonal relationships in mid- and later life sexuality is further highlighted by the distinction made between barriers to intimacy and barriers to sexual expression in the concept map. Currently, research that examines the decline in sexual activity frequency with age has focused predominantly on the presence of sexual dysfunction or the absence of a partner^{17,43} rather than interpersonal factors such as a fear of rejection or a lack of opportunities to engage in sexual expression. The splitting of barriers to sexuality into 2 subcategories indicates a clear separation of ideas by participants and further suggests that interpersonal problems can be just as influential in the decline of sexual behaviors as the presence of sexual dysfunction or the absence of a partner. It is worth noting, however, that other exploratory methodologies that do not involve the direct involvement of participants in identifying similarities between statements (eg, exploratory factor analysis) may not have identified this thematic split in barriers to sexuality and intimacy.

Unsurprisingly, negative changes related to aging identified by the thematic analysis included a reduction or loss of desire or sexual interest, health impediments to sexual expression, and decreased sexual functioning, although many individuals also discussed positive changes to their sexuality over time. These

included feeling like a more considerate lover and increased enjoyment of their sexuality. For many adults in mid- and later life, there is a message that sex and sexuality are only for the young^{6,26} and that intercourse is the primary goal of sexual expression.²² In a study by Ménard et al,²² however, participants discussed an increase in satisfaction and enjoyment in their sexual encounters when they were able to overcome learned attitudes about sexuality, gender roles, and sexual behaviors. This suggests that learning to disregard socially prevalent messages about sex being the domain of the young may be an important part of being able to maintain a positive sex life well into old age.

For all but 7 individuals in the midlife cohort, sexual experiences in mid- and later life were perceived to be different to those from the younger years. This suggests that individuals are likely to perceive a change to their experience of sexuality at some point prior to entering the later life stage (65+ years). Existing research fails to agree on what age this change occurs, with studies finding an increased focus on intimacy in populations in individuals from their late 20s into their 80s.^{2,28,44} This variability in results may suggest that this change is related more to life events that predominantly occur prior to entering later life than to chronological age.

Interestingly, more women discussed an increase in sexual enjoyment as they aged than did men. For these women, increased sexual enjoyment was attributed to changing environmental factors, including a reduction in parental responsibilities as children become adults. This is in line with research that suggests that many women attribute positive changes to their sex lives in midlife to environmental changes⁴⁵ and that women report that being able to juggle work and family becomes easier as children get older.⁴⁶ The improvement of sexual enjoyment by women but not men specifically in midlife may also be explained by research that suggests midlife is a greater time of environmental flux for women than men.^{47,48}

The results from this study are particularly relevant to health professionals and researchers who work in the area of sexuality with heterosexual men and women 45 years of age and older. In particular, the conceptual framework developed in this study may be an effective tool for examining sexual and relational problems in research and health care settings. The effective treatment of sexual and relational problems relies on the health practitioner having as much contextual information about the issue as possible.⁴⁹ By structuring information-gathering activities to align with the presented conceptual framework, health practitioners can be confident that they have a broad understanding of the context in which the sexual problem exists.

To demonstrate how the results of this study could help with the collection of contextual information about a sexual or relational problem by health practitioners, the conceptual framework is discussed within the context of narrative therapy. Narrative therapy is sometimes used in counseling to help identify and counteract repeating “scripts.”⁵⁰ In such a setting, the conceptual framework can be used to help a clinician gently prompt a client

to discuss topics that may not outwardly appear to be related to the problem being treated but may provide important contextual information in developing a treatment plan. By guiding conversations using the proposed conceptual framework, clinicians can work with clients to identify problematic scripts that are impacting their sexuality that may not have been identified in sessions otherwise. Clinicians should not assume, however, that using the proposed conceptual model as a roadmap for information gathering will eliminate the need to collect contextual information using other approaches, as well.

The proposed conceptual framework provides researchers and clinicians with a structured yet flexible approach to understanding and engaging with sexuality in mid- and later life. The framework is able to incorporate individual differences in terms of how an individual prioritizes the different sexuality aspects and related determinants but still provides a framework for organizing existing knowledge. This framework may also assist in the development of an agreed upon definition of sexuality in mid- and later life that is currently lacking in the field.⁴² Currently, only limited data are available to produce a reliable picture of what constitutes “normal” sexuality in mid- and later life, let alone effectively capture the spectrum of potential sexual experiences and preferences of older adults.²⁶ This is partly due to the limited number of validated measurement tools available to assess sexuality in mid- and later life.⁴² By reframing our understanding of sexuality in mid- and later life within the proposed framework, gaps in current approaches to assessing sexuality in mid- and later life are highlighted, and opportunities for further research are identified.

Limitations

This study was conducted solely within Australia, with men and women who identified exclusively as heterosexual. As such, further investigation is needed to determine the generalizability of results to other populations with different cultural values and social mores, those who do not identify as heterosexual, and those that do not identify with a sex binary (male/female) The need for additional investigation as to the generalizability of these results is further warranted based on the low response rate at the conclusion of phase 3 when participants were asked to comment on the conceptual map produced in the study. In addition, because the study required that participants read and respond to a written survey, participant inclusion was limited to those who could read and write English confidently. As a result, the results may not reflect the views of individuals within the community who are less proficient in English.

This study was designed to be exploratory in nature, rather than descriptive. Therefore, examining differences between subgroups of the sampled population was considered out of scope for this paper. This may mean that generational and/or sex differences, if they exist, have been masked by examining these cohorts collectively, and more research is needed that explores potential differences between these cohorts. Exploration of sex

and/or gender differences was also prevented by the small sample size, although the sample size is within or above recommended guidelines for GCM methodologies.^{32,36} Phrasing of demographic questions also limited the exploration of gender differences in this study, as respondents were asked to identify their sex as male or female, as opposed to identifying the gender they choose to identify with. It is also important to note that because this research focuses exclusively on the attitudes and perceived experiences of heterosexual adults ages 45 years and over, no data are available comparing these results with younger individuals or with LGBTIQ+ populations. As such, no comments can be made on the relevance of the proposed model to younger populations or to LGBTIQ+ populations of any age.

CONCLUSION

The present study produced a conceptual map of sexuality for heterosexual men and women in mid- and later life that reflects the sexual experiences of these individuals beyond simplistic assessments of sexual function and intercourse frequency. The 8 themes identified in the group concept mapping, paired with their calculated importance ratings, provide new information about the domains that heterosexual men and women in midlife and beyond consider to be important to their sexual experiences and how these are prioritized. Additionally, the conceptual map produced in this study provides a theoretical framework for sexuality in mid- and later life that helps distinguish between the internally driven parts of an individual's sexual experience from the parts that are, or can be, influenced by external factors. Such an approach allows for new perspectives on how sexuality in the later years is studied and may provide new avenues of intervention in situations where sexual problems arise.

Future research needs to build upon this representation of sexuality in mid- and later life to examine whether there are differences between men and women or between mid- and later life groups in terms of the areas they consider important to their sexual experiences. Additional research examining the influence of relationship length, relationship status, and cultural background on the sexuality and sexual experiences of adults in mid- and later life would also be beneficial. The concept map could also be used to guide the development of a comprehensive measurement tool that captures a broader range of aspects and factors related to sexuality in midlife and beyond. It would also be beneficial to conduct a similar study to examine the relevance of the proposed model to older LGBTIQ+ populations, as this area is largely understudied. Such a study would help identify areas of overlap for heterosexual and LGBTIQ+ populations while still providing enough flexibility in the research design to identify themes that may be unique to older LGBTIQ+ populations. It would also be interesting to conduct the same

analyses with a younger cohort to see if the current representations of sexuality in younger adulthood are valid

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