

From couplepause to doublepause: the impact of midlife physical, psychological, and social changes on the sexual life of aging couples

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Abstract

Introduction: Midlife men and women are facing frequent sexual problems that affect not only individuals' sexual health but also the sexual health of aging couples.

Objectives: To review the main sexual life challenges faced by midlife couples, to present the concepts of *couplepause* and *doublepause* as 2 new paradigms to address the sexual health needs of aging couples, and to discuss key aspects in couple-focused care.

Methods: An online meeting attended by 5 European experts in sexual health was carried out in June 2023 to discuss the topic. The conversation centered on their clinical experience and expert opinion. Additionally, the indexed literature was reviewed to endorse and complement the expert opinions obtained in the aforementioned meeting.

Results: Midlife men and women face physical, psychological, and sociocultural changes that affect their sexual activity. These changes may be experienced differently between genders. Both members of a couple may experience age-related changes concurrently or in an unsynchronized manner affecting their sexual health. Communication, sharing expectations, defining sexual dynamics, and couple goals are determinant for the sexual health of a midlife couple. Couplepause and doublepause are 2 new complementary paradigms that effectively address the sexual health needs of aging couples as a unit, considering physical, psychological, cultural, social, and dyadic-related factors. Couple-centered strategies should promote open communication about couple intimacy issues, understanding the diverse expectations according to gender and orientation, communication styles, and goals. The following are identified as crucial aspects to promote couple-focused care: education and training of health care professionals, the provision of information to aging couples, physician involvement in addressing sexual problems, the need for collaboration across medical specialties, and the development of effective tools and strategies.

Conclusions: The sexual problems of aging couples should be managed following couple-centered strategies that effectively address their sexual health needs as a couple.

Keywords: sexual dysfunction; middle-aged couple; menopause; late-onset hypogonadism; couple-focused care; biopsychosocial.

Introduction

Over the course of the last century, life expectancy has been rising rapidly worldwide.¹ An estimated 1 in 6 people worldwide will be aged ≥ 60 years by 2030, and this will increase to 1 in 4 to 5 people by 2050.¹ Despite a common misconception, sexual desire persists into old age,²⁻⁴ and newer generations of older people have increased positive attitudes toward sexual activity.⁵ Growing evidence suggests that a considerable number of midlife-age men and women are sexually active and enjoy sexual activity as they age.⁶⁻⁹

However, maintaining an active, healthy sexual life can be hampered by physical, hormonal, and sexual changes associated with menopause, late-onset hypogonadism, aging, and risk factors such as psychological changes and cultural norms.^{9,10} In a study of men and women aged 57 to 85 years, approximately half the respondents reported at least 1 bothersome sexual problem.⁸ The most prevalent issues among men are erectile difficulties, and among women they are low desire and other problems in different phases of the sexual response cycle.^{7,11,12} Moreover, sexual difficulties are strongly associated with physical health and subjective wellbeing.^{8,9,13-15} Men and women who reported poor health were less likely to be sexually active and were more likely to report sexual problems.^{8,15} Likewise, recent literature supports the link between noncommunicable diseases—including obesity, metabolic syndrome, diabetes molitus, and cardiovascular disease—and male and female sexual dysfunction.^{10,16,17} Importantly, beyond the individual factors that contribute to sexual dysfunction in women and

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Received: October 18, 2023. Revised: February 12, 2024. Accepted: March 7, 2024 © The Author(s) 2024. Published by Oxford University Press on behalf of The International Society of Sexual Medicine. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com men, the partner's sexual problems may have a reciprocal effect.¹⁸⁻²² Both members of a couple may experience agerelated changes concurrently and interdependently that affect the sexual health of the couple and need to be managed by following a couple-centered strategy.¹⁸ In addition, there is growing evidence based on research and clinical practice that highlights the role that the couple plays in its sexual life in terms of sexual functioning, satisfaction, and desire.²³⁻²⁶

Despite the increased frequency of sexual problems affecting aging women and men, the impact on the sexual health of mature couples, and the large body of evidence on couple counseling, conversations with health care professionals (HCPs) regarding sexuality are generally avoided.²⁷ Only around 1 in 3 men and 1 in 5 women discuss sexual problems with their physicians.⁷ Therefore, there is an unmet need to address sexual health among aging couples considering all the factors that affect their sexual lives, including physical, psychological, social, and couple-related factors.²⁸ The aim of the present expert opinion article is to review the main sexual life challenges faced by midlife couples as a result of physical, psychological, and social changes and other dyadicrelated factors and to present the concepts of couplepause and doublepause, 2 new paradigms that emerge to address the sexual health needs of aging couples. Key aspects in the management of couplepause and doublepause by following couple-centered strategies are also discussed.

Methods

The content of this article reflects the clinical experience and expert opinion discussed during an online brainstorming meeting in June 2023 among 5 European experts in sexual health from Denmark, Italy, Spain, and the Netherlands: 2 gynecologists, 1 sexologist, 1 psychiatrist and sexologist, and 1 urologist and sexologist. A moderator facilitated a 2hour discussion, divided into 4 sections: midlife physical and psychological changes, factors involved in a couple's sexual life, how to deal with couple sexual issues from partners' and HCPs' perspectives, and how to improve the management of couple intimacy-related issues. The experts have a special interest on male and female sexual dysfunction and the effect on the couple's sexual activity. The indexed literature was reviewed to endorse and complement the expert opinions obtained in the meeting. The main outcomes of the expert discussion are presented by topic.

This publication is intended for HCPs seeking information on the impact of physical, psychological, and sociocultural changes on the sexual life of aging couples and key aspects to consider in the management of the couple's sexual health. This collaborative exchange of knowledge and experiences among experts should enrich HCPs' understanding of the sexual health needs of aging couples and the importance of couple-centered strategies to effectively address them.

Challenges in sexual life faced by midlife couples *Physical, psychological, and social changes that affect*

sexual life in midlife couples

Many physical, psychological, and social/cultural factors have an impact on the sexual health of midlife individuals, affecting sexuality and inducing alteration in sexual behavior.^{29,30} While physical and psychological factors play an important role in the sexual function of men and women, social factors, which include those that occur in daily life, also play a role in the sexual health of the couple and its expectations.

In midlife, men and women experience physical changes associated with aging and hormonal changes that affect their physical function and sexual desire (Figure 1).³¹ Genitourinary syndrome of menopause, dyspareunia, and sexual desire disorders are the main sexual symptoms reported by women, while men usually experience erectile dysfunction, delayed or absent ejaculation, and hypoactive sexual desire disorder.^{18,32-36} Furthermore, the presence of chronic physical conditions, weight changes, and the feeling of getting older may affect self-perception and sexual confidence.⁹ These changes can dramatically affect feelings of attractiveness, masculinity, and femininity.

In addition, sexuality can be influenced by various life transitions and role changes, including entering older age. These role changes may affect various aspects of life, such as family, work, and social life.9 For those couples with offspring, factors such as lack of time and hormonal changes in earlier years may have influenced the script of their sexual lives.²⁸ However, as their children grow and depend less on their parents or even leave home, there is a shift in family dynamics that may lead to new roles within the relationship. Usually, around age >60 years, individuals assume completely new roles with children leaving home. Yet, the presence of older children in the home differs among countries. For example, in south European countries such the Mediterranean ones, there is a higher likelihood of adult children still living at home as compared with other European countries, such as those north of the Alps. As more time becomes available and expectations about sexual activity in later life change due to cultural shifts and individual experiences, there arises a need to reinvent and renegotiate the sexual dynamics of the relationship.³⁷

Gender differences in midlife

There may be an asymmetry in the perception of midlife between women and men, affecting their sexual experiences and overall identity.⁹ The physical, psychological, and social factors may be experienced differently between genders, leading to varied challenges and needs. In women, the decline in sexual desire may start in their 40s or even earlier due to factors such as having children, various life responsibilities, or societal expectations rather than solely being a result of physical or hormonal changes. In their 50s, as women reach the perimenopausal period and then complete menopause, hormonal changes can significantly affect their sexual desire and arousal.³⁸ In this way, treatment options such as menopause hormone therapy can play a role in maintaining a satisfying sexual life for women.³⁹ The women who often seek these treatments are those who prioritize their sexual lives or those who need to alleviate the very bothersome menopause-related symptoms, such as hot flushes or insomnia, that can also affect their sexual lives.⁹ However, many other women consider menopause a natural process and do not seek advice or help.⁴⁰ On the contrary, men in the same age group may experience a decline in physical function with less impact on their desire. In this line, men consider their physical health in order to preserve their sexual function more important than women.⁴

Individuals' desire in older age can be affected by the expectations and cultural norms surrounding sexuality.⁴² Cultural differences, particularly in the division of tasks between men and women, are an important factor in shaping sexual dynamics.⁴³ In addition, important differences between the

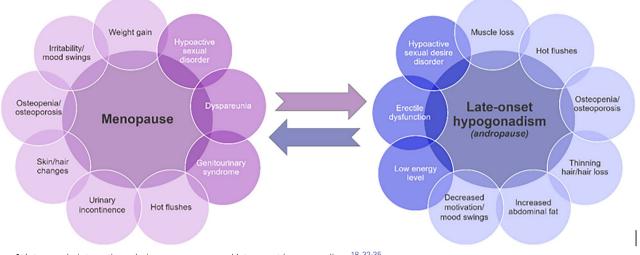


Figure 1. Intracouple interactions during menopause and late-onset hypogonadism.^{18,32-35}

social role of women and men are observed in several sociocultures.44 In patriarchal cultures, the loss of social power with retirement has a potential impact on self-perception of masculinity and sexual power.45 In these cultures, the loss of social influence is associated with a decline in sexual potency. and individuals who maintain social authority in their older years are often regarded as exceptional.⁴⁶ On the contrary, cultures rooted in Confucianism do not equate aging with a loss of power or sexual prowess due to their deep reverence for older individuals.⁴⁷ Additionally, in some societies, older women are not expected to be sexually active, even if they are respected for their age.⁴¹ This creates a challenge for older women who want to maintain an active sex life and seek help from HCPs. Furthermore, in some cultures, older men are often perceived as being more attractive than older women, which may affect their self-perception and self-esteem.⁴⁸⁻⁵¹ Nevertheless, in Western societies, representations of older men and women in the media and society are evolving, with increasing recognition of the potential desirability and attractiveness associated with aging.52 The influence of these sociocultural factors on sexual health and the contrasting perspectives on aging and sexual health from different cultures should be explored as they can offer an interesting avenue for future research.44

Dyadic-related factors that affect sexual life in midlife couples

Communication and expectations.

In the last decades, there has been a shift in mind-set, with older individuals desiring to maintain a satisfying sexual life well into their 60s and beyond. Older couples today live longer and healthier and therefore have different expectations about their sexual lives as compared with previous generations.^{5,53} In addition, the desire to maintain a good sexual life goes hand in hand with pharmacologic strategies, including hormonal therapies for women and men, and can significantly affect the overall situation with a partner. Communication and sharing expectations within couples are important to improve their sexual activity.⁵⁴ Couples who communicate and work together could be expected to more likely overcome sexual issues and find suitable solutions.²⁶ However, communication about sexual matters is still an important challenge, and

opening up about sexual issues remains vulnerable and difficult. In the case of desire discrepancies or erectile dysfunction, communication and partner involvement are crucial. In these situations, the role of the partner is significant because if that person is disengaged or uninterested in addressing the issue, it can hinder seeking solutions. Because of that, engaging both partners in solving sexual issues is essential for successful outcomes.⁵⁵

Sexual dynamics and couple goals.

The dynamics of sexuality differ between new and longterm couples. New couples often experience curiosity and insecurity, dealing with changes and uncertainties, while longterm couples may shift their focus from sexual intercourse to intimacy.⁹ They may also face sexual boredom,⁵⁵ where routine and familiarity can affect their sexual experiences. Either way, couple goals related to sexuality vary among couples and along the years. Sex is not limited to intercourse, being crucial to recognize the importance of intimacy and communication in relationships.^{52,56} Losing sexual activity due to sexual issues can create fear and avoidance of intimacy.⁵⁷ Therefore, it is important for the couple to redefine its goals. Some couples prioritize intimacy over sexual activity.^{37,52,58} To address sexual boredom, exploring new ways to maintain excitement can be beneficial.

In addition, couples may experience unsynchronized or nonparallel physiologic, psychological, and social changes during midlife that affect their sexual dynamics and overall relationship. Nonparallel changes can extend beyond sexuality, encompassing various aspects of life, such as severe illness or other diverging circumstances.^{9,59} When couples remain together, with differing sexual needs and expectations that lead to potential inequalities in sexual satisfaction, communication and understanding between partners become essential for navigating the challenges of midlife changes.

Nonheterosexual couples.

Limited evidence exists about midlife nonheterosexual couples, including homosexual and bisexual couples, as well as asexual individuals.⁶⁰ These observations are mostly based on the clinical experience of the experts. Therefore, they need to be considered as trends rather than generalizations.

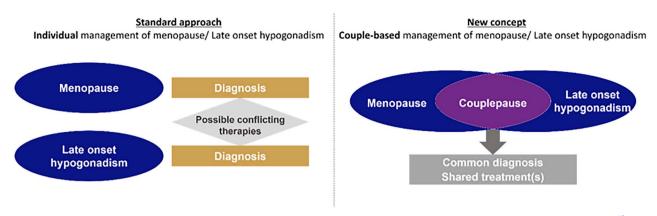


Figure 2. Individual- vs couple-based approach in the management of menopause/late-onset hypogonadism (adapted from Jannini and Nappi¹⁸).

Men who have sex with men tend to prioritize sexuality more than the average heterosexual couple. As couples, men who have sex with men highly value quality of erection, as it is often associated with desire and sexual satisfaction.⁶¹ They tend to be more adventurous and open to using sex toys or devices in their sexual practices.⁶² As sexuality holds significant importance in their lives, they may seek help earlier for sexual problems than heterosexual couples. In the case of women who have sex with women, they may have less frequent sexual intercourse than other couples.^{63,64} However, they usually engage in more behaviors tied to intimacy and emotional connection, reporting higher sexual satisfaction and more frequent orgasms when compared with heterosexual couples.^{65,66} Importantly, the sexual lives of homosexual couples can be affected by homophobic issues and societal stigma. These factors and orientations should be considered when addressing sexual issues in nonheterosexual couples.⁶⁷

From couplepause to doublepause

Couplepause is a diagnostic and therapeutic paradigm coined and published by Jannini and Nappi in 2018.^{18,68} This paradigm considers the sexual health needs of an aging couple as a whole, instead of addressing the sexual health needs of a patient alone without considering the contribution of the partner's sexual health. As a result of a couple-based approach, in which diagnoses and treatments are shared within the couple, the risks of conflicting therapies are potentially minimized and the therapeutic success is improved (Figure 2).^{18,31}

Despite the successful use of this term in clinical practice and the evident benefits in the management of the sexual health of aging couples, the term *couplepause* may show limitations, as summarized in Table 1.⁶⁸ Therefore, *doublepause* was proposed as a new diagnostic and therapeutic term that reflects the need to simultaneously treat sexual dysfunctions related to menopause and late-onset hypogonadism in the couple.⁶⁸ This term was intended not only to understand the beneficial effect of mproving individual sexual dysfunctions (eg, lack of lubrication, vaginal pain, erectile dysfunction, lack of desire) on a couple's sexual health but also to determine the partner's role in compliance and adherence to the treatment.⁶⁸

The new and complementary doublepause concept aims to identify and address the risk factors that are common for noncommunicable diseases and sexual dysfunctions in the aging couple, as well as to recognize the possible impact of common chronic illnesses and their treatments on couple's sexuality and sexual satisfaction.⁶⁹ Moreover, the doublepause strategy emerges to address the sexual needs of aging homosexual couples.

Doublepause is used when both members of the couple present sexual dysfunctions related to aging, menopause, and/or late-onset hypogonadism that affect the sexual health of the couple,⁶⁸ thus *doubling* their impact on sexual health. The main male dysfunctions include hypoactive sexual desire disorder, erectile dysfunction, and premature/delayed ejaculation, and the female sexual dysfunctions are usually hypoactive sexual desire disorder, vulvar and vaginal atrophy, lack of lubrication, and pain. Depression and unhealthy lifestyles are also associated with sexual dysfunction. These problems are frequently multiplicative in a way that symptoms in one partner may exacerbate symptoms in the other partner. A typical scenario would involve a man affected by subclinical erectile dysfunction (ie, partial erectionsor episodic difficulties getting or maintaining erections)⁷⁰ who may easily develop and fulfill the standards criteria for erectile dysfunction when coupled with a partner who has initial or mild dyspareunia,¹⁸ may easily develop and fulfill the standards criteria for erectile dysfunction. Figure 3 depicts frequent clinical situations of doublepause that should be managed following a couple-engaged strategy.

Key aspects to address couplepause and doublepause following couple-focused strategies

Key aspects needed in the management of couplepause/doublepause following couple-focused strategies were discussed and are summarized in Figure 4.

First, inviting and involving both members of the couples rather than targeting individuals, is crucial in the management of the couple's sexual health to discuss the dynamics and concerns specific to them.⁷¹ Information about the physical and psychological changes that couples may experience during midlife should be provided, including discussion of possible challenges and solutions. Discussing a couple's goals regarding sexual activities is important because it may vary among couples: some may prioritize intercourse while others may seek more intimacy and communication.²⁵ HCPs should present all the available possibilities and interventions for improving intimacy problems to the couple, ensuring that couples are aware of the range of approaches that can be explored. Subsequently, decisions on treatment should be shared between the HCPs and the couple to jointly determine the most suitable course of action.⁷²

Table 1. Values and limitations of the term couplepause in management of the sexual health in an aging couple.

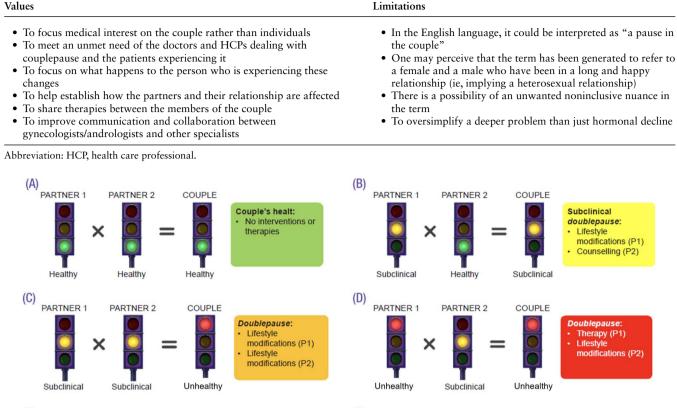




Figure 3. Frequent clinical situations of doublepause represented by a traffic light system. In clinical practice, a traffic light system may be a useful tool to depict the management of doublepause. Example A: The sexual conditions of partner 1 (P1) and partner 2 (P2) are considered healthy, so no interventions or therapies are required for the couple's health. Example B: Partner 1 presents with subclinical erectile dysfunction or subclinical reduced sexual desire, but partner 2 is healthy; then, overall the couple may be considered to be facing subclinical doublepause, and an intervention is required, such as lifestyle modifications for partner 1 and counseling for partner 2. Example C: Both partners have subclinical sexual symptoms that result in an unhealthy sexual condition (ie, doublepause), and both require lifestyle modifications. Example D: Doublepause is clearly present when partner 1 has an unhealthy sexual condition in need of therapy (either pharmacologic or hormonal) and partner 2 has a subclinical sexual condition. Example E: Doublepause is present even when partner 1 has an unhealthy sexual condition and partner 2 has a healthy sexual condition. Example F: Full doublepause is happening when both partners have an unhealthy sexual condition and both require therapy.

For HCPs to help couples improve their intimacy problems, it is essential to provide them with adequate education and training, including the necessary skills to confidently initiate conversations about sexuality and intimacy with their patients, ask relevant questions, and engage in discussions to address sexual problems within the couple.⁹ Importantly, HCPs should develop skills to differentiate between physical dysfunction and psychosocial factors and provide appropriate support accordingly to effectively help couples.⁷³ In this way, HCPs will be able to screen patients for issues, understanding the their goals, which often revolve around pleasure, satisfaction, and connection rather than solely physical problems. Additionally, HCPs should be aware that couples may experience these changes and other health-related problems at different times during midlife, in an unsynchronized manner.

This education and training should not be limited to sexologists but extended to other HCPs, such as endocrinologists, urologists, andrologists, gynecologists, psychiatrists, general practitioners, and other medical specialists who may come across patients with medical conditions and/or risk factors associated with sexual dysfunction, including cardiovascular disease, diabesity, cancer, depression, and other noncommunicable diseases. In general, HCPs should be proactive in discussing sexual health with their patients, with it being an obligation if patients present any noncommunicable diseases. Importantly, HCPs from different medical specialties, especially general practitioners, should be encouraged to collaborate and be supportive in the process of addressing sexual. problems, in the light of a holistic perspective known as systems sexology, which considers multiple systems producing sexual symptoms.

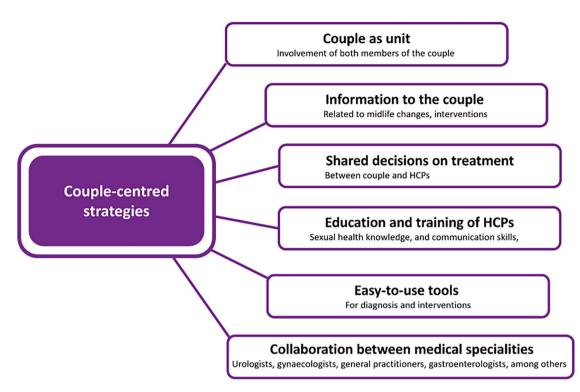


Figure 4. Key aspects necessary in the management of couplepause and doublepause following couple-centered strategies. HCP, health care professional.

In addition, HCPs should be provided with easy-to-use tools to diagnose couple issues, including couplepause/doublepause situations, thus improving couple-focused interventions. Currently, there is an unmet need for couple-focused tools that can be filled by generating a new questionnaire⁷² that considers the couple's perspective and includes psychological aspects in a gender-neutral form as well as by adapting and validating existing ones. For that, qualitative studies involving patients and experts should be conducted to identify important areas to address in the questionnaires.

Conclusions

Although sexuality remains an important and enduring component of life as people age, midlife couples face physical, psychological, and sociocultural changes that affect their sexual activity and therefore their overall health and wellbeing. Couplepause and doublepause are new complementary paradigms that emerge to effectively address the multifaceted and complex sexual health needs of aging couples as a unit, considering physical but also psychological, cultural, social, and dyadic-related factors. To successfully manage the sexual health of aging couples, couple-centered strategies are essential to promote open communication about couple intimacy issues and to understand the diverse expectations according to the gender/orientation, communication styles, and goals of the couple. Education and training of HCPs, the provision of information to aging couples, physician involvement in addressing sexual problems, the need for collaboration across medical specialties, and the development of effective tools and strategies are therefore crucial to promote couple-focused care.

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Author contributions

All authors contributed extensively to the work presented in this article. All authors contributed significantly to the conception, design, acquisition of data, or analysis and interpretation of data. All authors participated in drafting, reviewing, and/or revising the manuscript and approved its submission.

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Conflicts of interest

A.G.E.G. has received honorarium for lectures or participation in advisory boards or as a consultant by the following companies: Viatris, Eli Lilly, Pfizer, Sandoz, Futura Medical/Exeron, Astellas, Novo Nordic, Freya, and Lundbeck. R.E.N. had past financial relationships (lecturer, member of advisory boards, and/or consultant) with Bochringer Ingelheim, Ely Lilly, Endoceutics, Merck Sharpe & Dohme, Palatin Technologies, Pfizer Inc, Procter & Gamble Co, TEVA Women's Health Inc, and Zambon SpA. At present, she has ongoing relationships with Astellas, Bayer HealthCare AG, Exceltis, Fidia, Gedeon Richter, HRA Pharma, Merck & Co, Novo Nordisk, Shionogi Limited, Theramex, and Viatris. S.P. has served as symposium speaker or advisory board member for Abbott, Amgen, Bioiberica, Candel, Perrer, Gedeon Richter, Pfizer, Procare, Seid, Servier, Shionogi, and Viatris and has received research grants and/or consulting fees from Amgen, Bayer, Gynea, Leon Farma, Pfizer, Preglem, Sandoz, and Servier. Y.R. has received honorarium for lectures or participation in advisory boards or as consultant by the following companies: Coloplast, Boston Scientific, Ibsa, Besins, Ohhmed, Freya, Lundbeck, Viatris, and Pfizer. E.A.J. is a speaker and consultant of Bayer, Ibsa, Menarini, Pfizer, Shionogi, and Viatris.

References

- World Health Organization. Ageing and health. 2022. Accessed September 5, 2023. https://www.who.int/news-room/fact-sheets/ detail/ageing-and-health
- Heidari S. Sexuality and older people: a neglected issue. Reprod Health Matters. 2016;24(48):1–5. https://doi.org/10.1016/ j.rhm.2016.11.011
- Rees M, Lambrinoudaki I, Bitzer J, Mahmood T. Joint opinion paper—"Ageing and sexual health" by the European Board and College of Obstetrics and Gynaecology (EBCOG) and the European Menopause and Andropause Society (EMAS). Eur J Obstet Gynecol Reprod Biol. 2018;220:132–134. https://doi.o rg/10.1016/j.ejogrb.2017.04.024
- Graf AS, Patrick JH. The influence of sexual attitudes on mid- to late-life sexual well-being: age, not gender, as a salient factor. *Int J Aging Hum Dev.* 2014;79(1):55–79. https://doi.org/10.2190/A G.79.1.c
- Beckman N, Waern M, Gustafson D, Skoog I. Secular trends in self reported sexual activity and satisfaction in Swedish 70 year olds: cross sectional survey of four populations, 1971-2001. *BMJ*. 2008;337(3):a279. https://doi.org/10.1136/bmj.a279
- Freak-Poli R, Kirkman M, De Castro LG, Direk N, Franco OH, Tiemeier H. Sexual activity and physical tenderness in older adults: cross-sectional prevalence and associated characteristics. J Sex Med. 2017;14(7):918–927. https://doi.org/10.1016/j. jsxm.2017.05.010
- Nicolosi A, Laumann EO, Glasser DB, Moreira EDJ, Paik A, Gingell C. Sexual behavior and sexual dysfunctions after age 40: the global study of sexual attitudes and behaviors. Urology. 2004;64(5):991–997. https://doi.org/10.1016/j.uro logy.2004.06.055
- Lindau ST, Schumm LP, Laumann EO, Levinson W, O'Muircheartaigh CA, Waite LJ. A study of sexuality and health among older adults in the United States. *N Engl J Med*. 2007;357(8):762–774. https://doi.org/10.1056/NE JMoa067423
- Harder H, Starkings RML, Fallowfield LJ, et al. Sexual functioning in 4,418 postmenopausal women participating in UKCTOCS: a qualitative free-text analysis. *Menopause*. 2019;26(10):1100– 1009. https://doi.org/10.1097/GME.00000000001377
- Camacho ME, Reyes-Ortiz CA. Sexual dysfunction in the elderly: age or disease? Int J Impot Res. 2005;17(S1):S52–S56. https://doi.org/10.1038/sj.ijir.3901429
- 11. Herkommer K, Meissner VH, Dinkel A, *et al.* Prevalence, lifestyle, and risk factors of erectile dysfunction, premature ejaculation, and low libido in middle-aged men: first results of the Bavarian Men's Health-Study. *Andrology*. Published online September 7, 2023. https://doi.org/10.1111/andr.13524
- Andresen JB, Graugaard C, Andersson M, Bahnsen MK, Frisch M. Sexual inactivity and dysfunction in Denmark: a Project SEXUS study. Arch Sex Behav. 2022;51(8):3669–3688. https:// doi.org/10.1007/s10508-022-02348-x
- Hinchliff S, Tetley J, Lee D, Nazroo J. Older adults' experiences of sexual difficulties: qualitative findings from the English Longitudinal Study on Ageing (ELSA). J Sex Res. 2018;55(2):152–163. https://doi.org/10.1080/00224499.2016.1269308
- Lee DM, Vanhoutte B, Nazroo J, Pendleton N. Sexual health and positive subjective well-being in partnered older men and women. J Gerontol B Psychol Sci Soc Sci. 2016;71(4):698–710. https://doi.o rg/10.1093/geronb/gbw018
- 15. Lee DM, Nazroo J, O'Connor DB, Blake M, Pendleton N. Sexual health and well-being among older men and women in England: findings from the English longitudinal study of ageing.

Arch Sex Behav. 2016;45(1):133-144. https://doi.org/10.1007/s10508-014-0465-1

- Jannini EA. SM = SM: the interface of systems medicine and sexual medicine for facing non-communicable diseases in a genderdependent manner. Sex Med Rev. 2017;5(3):349–364. https://doi.o rg/10.1016/j.sxmr.2017.04.002
- Steptoe A, Jackson SE, Wardle J. Sexual activity and concerns in people with coronary heart disease from a population-based study. *Heart*. 2016;102(14):1095–1099. https://doi.org/10.1136/ heartjnl-2015-308993
- Jannini EA, Nappi RE. Couplepause: a new paradigm in treating sexual dysfunction during menopause and andropause. *Sex Med Rev.* 2018;6(3):384–395. https://doi.org/10.1016/j. sxmr.2017.11.002
- Chew PY, Choy CL, Bin SH, *et al.* The association between female sexual dysfunction and sexual dysfunction in the male partner: a systematic review and meta-analysis. *J Sex Med.* 2021;18(1):99– 112. https://doi.org/10.1016/j.jsxm.2020.10.001
- 20. Fisher WA, Rosen RC, Eardley I, Sand M, Goldstein I. Sexual experience of female partners of men with erectile dysfunction: the Female Experience of Men's Attitudes to Life Events and Sexuality (FEMALES) study. J Sex Med. 2005;2(5):675–684. https://doi.o rg/10.1111/j.1743-6109.2005.00118.x
- Oberg K, Sjögren F-MK. On Swedish women's distressing sexual dysfunctions: some concomitant conditions and life satisfaction. J Sex Med. 2005;2(2):169–180. https://doi.org/10.1111/ j.1743-6109.2005.20226.x
- 22. Jiann B-P, Su C-C, Tsai J-Y. Is female sexual function related to the male partners' erectile function? *J Sex Med*. 2013;10(2):420–429. https://doi.org/10.1111/j.1743-6109.2012.03007.x
- Prekatsounaki S, Gijs L, Enzlin P. Dyadic sexual desire in romantic relationships: the dyadic interactions affecting dyadic sexual desire model. *Arch Sex Behav.* 2022;51(1):417–440. https://doi.o rg/10.1007/s10508-021-02165-8
- Pascoal PM, Byers ES, Alvarez M-J, et al. A dyadic approach to understanding the link between sexual functioning and sexual satisfaction in heterosexual couples. J Sex Res. 2018;55(9):1155– 1166. https://doi.org/10.1080/00224499.2017.1373267
- Kleinplatz P, Charest M, Rosen L, Menard AD. Optimal couple sexuality: a review of the (limited) literature. *Curr Sex Health Rep.* 2022;14(2):63–69. https://doi.org/10.1007/ s11930-022-00327-w
- Mallory AB, Stanton AM, Handy AB. Couples' sexual communication and dimensions of sexual function: a meta-analysis. J Sex Res. 2019;56(7):882–898. https://doi.org/10.1080/00224499. 2019.1568375
- 27. Hinchliff S, Carvalheira AA, Štulhofer A, Janssen E, Hald GM, Træen B. Seeking help for sexual difficulties: findings from a study with older adults in four European countries. *Eur J Ageing*. 2020;17(2):185–195. https://doi.org/10.1007/s10433-019-00536-8
- Gurreri S, Lachapelle M, Godbout N. Associations between parenthood, relationship, and sexual satisfaction in sex therapy patients. *Can J Hum Sex.* 2022;31(2):176–184. https://doi.org/10.3138/ cjhs.2022-0027
- Ricoy-Cano AJ, Obrero-Gaitán E, Caravaca-Sánchez F, de la Fuente-Robles YM. Factors conditioning sexual behavior in older adults: a systematic review of qualitative studies. *J Clin Med.* 2020;9(6):9. https://doi.org/10.3390/jcm9061716
- Fronc K, Zielińska P, Kędziora-Kornatowska K. Factors affecting sexuality of elderly people and sexual dysfunctions. J Educ Heal Sport. 2022;12(7):79–91. https://doi.org/10.12775/JE HS.2022.12.07.008
- Rozenberg S, Nappi R, Schaudig K, Jannini E, Giraldi A. Couplepause: deconstructing sick menopause and andropause during midlife. J Sex Med. 2023;20(11):1270–1273. https://doi.or rg/10.1093/jsxmed/qdad113
- 32. Jakiel G, Makara-Studzińska M, Ciebiera M, Słabuszewska-Jóźwiak A. Andropause: state of the art 2005 and review of

- Nandy PR, Singh DV, Madhusoodanan P, Sandhu AS. Male andropause: a myth or reality. *Med J Armed Forces India*. 2008; 64(3):244–249. https://doi.org/10.1016/S0377-1237(08)80105-0
- 34. Andropause SP. Current concepts. Indian J Endocrinol Metab. 2013;17(suppl 3):S621–S629. https://doi.org/10.4103/2230-8210. 123552
- Monteleone P, Mascagni G, Giannini A, Genazzani AR, Simoncini T. Symptoms of menopause—global prevalence, physiology and implications. Nat Rev Endocrinol. 2018;14(4):199–215. https:// doi.org/10.1038/nrendo.2017.180
- Nappi RE, Martini E, Cucinella L, et al. Addressing vulvovaginal atrophy (VVA)/genitourinary syndrome of menopause (GSM) for healthy aging in women. Front Endocrinol (Lausanne). 2019;10:561. https://doi.org/10.3389/fendo.2019.00561
- 37. 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. 2020;8(1):84–99. https://doi.o rg/10.1016/j.esxm.2019.10.001
- Wolfman W, Krakowsky Y, Fortier M. Guideline No. 422d: menopause and sexuality. J Obstet Gynaecol Canada. 2021; 43(11):1334–1341.e1. https://doi.org/10.1016/j.jogc.2021.09.005
- 39. Meziou N, Scholfield C, Taylor CA, Armstrong HL. Hormone therapy for sexual function in perimenopausal and postmenopausal women: a systematic review and metaanalysis update. *Menopause*. 2023;30(6):659–671. https://doi.o rg/10.1097/GME.00000000002185
- 40. Rozenberg S, Panay N, Gambacciani M, Cano A, Gray S, Schaudig K. Breaking down barriers for prescribing and using hormone therapy for the treatment of menopausal symptoms: an experts' perspective. *Expert Rev Clin Pharmacol.* 2023;16(6):507–517. https://doi.org/10.1080/17512433.2023.2219056
- Lindau ST, Gavrilova N. Sex, health, and years of sexually active life gained due to good health: evidence from two US population based cross sectional surveys of ageing. *BMJ*. 2010;340(2):c810. https://doi.org/10.1136/bmj.c810
- Minkin MJ. Sexual health and relationships after age 60. Maturitas. 2016;83:27–32. https://doi.org/10.1016/j.maturita s.2015.10.004
- 43. Træen B, Villar F. Sexual well-being is part of aging well. Eur J Ageing. 2020;17(2):135–138. https://doi.org/10.1007/ s10433-020-00551-0
- Curley CM, Johnson BT. Sexuality and aging: is it time for a new sexual revolution? Soc Sci Med. 2022;301:114865. https://doi.o rg/10.1016/j.socscimed.2022.114865
- 45. Oliffe JL, Rasmussen B, Bottorff JL, et al. Masculinities, work, and retirement among older men who experience depression. Qual Health Res. 2013;23(12):1626–1637. https://doi.o rg/10.1177/1049732313509408
- 46. Wentzell E, Labuski C. Role of medical anthropology in understanding cultural differences in sexuality. In: Rowland DL, Jannini EA, eds. Cultural Differences and the Practice of Sexual Medicine: A Guide for Sexual Health Practitioners. Springer International Publishing; 2020:23–35. https://doi.o rg/10.1007/978-3-030-36222-5_2
- 47. Colonnello E, Jannini EA. Impact of Chinese traditional culture and related social norms on current Chinese sexuality and on the future of Chinese sexual medicine. In: Rowland DL, Jannini EA, eds. Cultural Differences and the Practice of Sexual Medicine: A Guide for Sexual Health Practitioners. Springer International Publishing; 2020:95–113. https://doi.o rg/10.1007/978-3-030-36222-5_6
- Nazarpour S, Simbar M, Majd HA, Torkamani ZJ, Andarvar KD, Rahnemaei F. The relationship between postmenopausal women's body image and the severity of menopausal symptoms. BMC Public Health. 2021;21(1):1599. https://doi.org/10.1186/ s12889-021-11643-6

- Vincent C, Bodnaruc AM, Prud'homme D, Olson V, Giroux I. Associations between menopause and body image: a systematic review. Womens Health (Lond). 2023;19:17455057231209536. https://doi.org/10.1177/17455057231209536
- Ebner NC, Luedicke J, Voelkle MC, Riediger M, Lin T, Lindenberger U. An adult developmental approach to perceived facial attractiveness and distinctiveness. *Front Psychol.* 2018;9:561. https://doi.org/10.3389/fpsyg.2018.00561
- Ishikawa M. Internalization of negative societal views on old age into self-perceptions of aging: exploring factors associated with self-directed ageism. *Front Sociol.* 2023;8:1291325. https://doi.o rg/10.3389/fsoc.2023.1291325
- 52. Limoncin E, Mollaioli D, Sansone A, *et al.* Dyadic satisfaction and shared affectivity are associated with psycho-sexual functioning in elderly men and women. *Theol Sex.* 2022;3(1):68–77. https://doi.org/10.3390/sexes3010006
- Fisher JS, Rezk A, Nwefo E, Masterson J, Ramasamy R. Sexual health in the elderly population. *Curr Sex Heal Reports*. 2020; 12(4):381–388. https://doi.org/10.1007/s11930-020-00278-0
- Stahl KAM, Gale J, Lewis DC, Kleiber D. Pathways to pleasure: older adult women's reflections on being sexual beings. J Women Aging. 2019;31(1):30–48. https://doi.org/10.1080/08952841. 2017.1409305
- 55. de Oliveira L, Štulhofer A, Tafro A, Carvalho J, Nobre P. Sexual boredom and sexual desire in long-term relationships: a latent profile analysis. J Sex Med. 2023;20(1):14–21. https://doi.o rg/10.1093/jsxmed/qdac018
- 56. van Lankveld J, Jacobs N, Thewissen V, Dewitte M, Verboon P. The associations of intimacy and sexuality in daily life: temporal dynamics and gender effects within romantic relationships. J Soc Pers Relat. 2018;35(4):557–576. https://doi.org/10.1177/0265407517743076
- 57. Belu CF, Corsini-Munt S, Dubé JP, Wang GA, Rosen NO. Partner responses to low desire among couples coping with male hypoactive sexual desire disorder and associations with sexual well-being. *J Sex Med.* 2023;20(7):955–964. https://doi.org/10.1093/jsxmed/ qdad069
- Brotto L, Atallah S, Johnson-Agbakwu C, et al. Psychological and interpersonal dimensions of sexual function and dysfunction. J Sex Med. 2016;13(4):538–571. https://doi.org/10.1016/j. jsxm.2016.01.019
- 59. Luo MS, Li LW, Hu RX. Self-perceptions of aging and domain-specific health outcomes among midlife and later-life couples. J Aging Health. 2021;33(1-2):155–166. https://doi.o rg/10.1177/0898264320966263
- Brennan-Ing M, Kaufman JE, Larson B, Gamarel KE, Seidel L, Karpiak SE. Sexual health among lesbian, gay, bisexual, and heterosexual older adults: an exploratory analysis. *Clin Gerontol.* 2021;44(3):222–234. https://doi.org/10.1080/07317115.2020. 1846103
- Shindel AW, Vittinghoff E, Breyer BN. Erectile dysfunction and premature ejaculation in men who have sex with men. J Sex Med. 2012;9(2):576–584. https://doi.org/10.1111/j.1743-6109. 2011.02585.x
- 62. Rice CE, Maierhofer C, Fields KS, Ervin M, Lanza ST, Turner AN. Beyond anal sex: sexual practices of men who have sex with men and associations with HIV and other sexually transmitted infections. J Sex Med. 2016;13(3):374–382. https://doi.org/10.1016/j. jsxm.2016.01.001
- 63. Beyond IS. Lesbian bed death. J Lesbian Stud. 2002;6(1):111–120. https://doi.org/10.1300/J155v06n01_10
- 64. Cohen JN, Byers ES. Beyond lesbian bed death: enhancing our understanding of the sexuality of sexual-minority women in relationships. J Sex Res. 2014;51(8):893–903. https://doi.org/10.1080/00224499.2013.795924
- 65. Kruk M, Matsick JL, Wardecker BM. Feminiouty concerns and feelings about menstruation cessation among lesbian, bisexual, and heterosexual women: implications for menopause. J

Womens Health (Larchmt). 2021;30(12):1751-1760. https://doi.o rg/10.1089/jwh.2020.8757

- 66. Frederick DA, Gillespie BJ, Lever J, Berardi V, Garcia JR. Debunking lesbian bed death: using coarsened exact matching to compare sexual practices and satisfaction of lesbian and heterosexual women. Arch Sex Behav. 2021;50(8):3601-3619. https://doi.o rg/10.1007/s10508-021-02096-4
- 67. NIH Consensus Development Panel on Impotence. Impotence. JAMA. 1993;270(1):83-90. https://doi.org/10.1001/jama.1993. 03510010089036
- 68. Jannini EA. Doublepause: from pause to play. Presented at: 14th European Congress on Menopause and Andropause; May 3-5, 2023: Florence, Italy.
- 69. Sansone A, Reisman Y, Meto S, Dolci S, Jannini EA. The role of the "anti-inflammatory" couple for the management of hyperuricemia with deposition. Sex Med. 2022;10(5):100562. https://doi.org/10.1016/j.esxm.2022.100562

- 70. Colonnello E, Ciocca G, Limoncin E, Sansone A, Jannini EA. Redefining a sexual medicine paradigm: subclinical premature ejaculation as a new taxonomic entity. Nat Rev Urol. 2021;18(2):115-127. https://doi.org/10.1038/s41585-020-00417 - 1
- 71. Bitzer J, Platano G, Tschudin S, Alder J. Sexual counseling in elderly couples. J Sex Med. 2008;5(9):2027-2043. https://doi.o rg/10.1111/i.1743-6109.2008.00926.x
- 72. Hatzichristou D, Kirana P-S, Banner L, et al. Diagnosing sexual dysfunction in men and women: sexual history taking and the role of symptom scales and questionnaires. J Sex Med. 2016;13(8):1166-1182. https://doi.org/10.1016/j. jsxm.2016.05.017
- 73. Grabovac I, McDermott DT. Sexuality and sexual activity in older age: an age old issue? Lancet Reg Heal West Pacific. 2023;39:100831. https://doi.org/10.1016/j.lanwpc.2023. 100831