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Review Article

Manopause and Sexual Life Amongst Older Men: A Review Study

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Abstract

Objectives: To determine factors affecting the quality of men's sexual life during manopause and identify the existing challenges.

Design: A review study.

Setting(s): Older people living in public institutions and living in their own homes.

Participants: Older adults over 60 years of age.

Outcome measures: All factors affecting the quality of sexual life of postmenopausal men in old age have been investigated in three physical, psycho-emotional, and social domains.

Results: In the physical field, factors such as age, general health, disease, exercise, impotence, erectile dysfunction, genital warts, surgery of total hip arthroplasty, surgery of prostate, cancer radiotherapy, alopecia, and disorder in ejaculation, urinary disorders, and physical rehabilitation were known factors affecting the quality of men's sexual life. The impacts of factors such as sleep problems, stressors, self-image, depression, alcohol addiction, premature ejaculation, emotional divorce, marital satisfaction, and fear of sexual activity were confirmed in the psycho-emotional field of studies. In the social field, factors such as education, duration of the marriage, marital status, income, life partners, number of sexual relations with spouse, the presence of multiple sexual partners, body mass of spouse (female), sex education and health literacy, sexual awareness, and quality of life related to health were recognized to be effective.

Conclusions: Promoting sexual awareness through educational programs, providing opportunities for frequent sexual relationships, and addressing physical, psychological, emotional, cognitive, and social factors, and andropause could contribute to a more desirable sexual life quality in men during andropause.

Keywords: Manopause, Sexual activity, Andropause, Iran, Older adults

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Introduction

Andropause is a common problem among older men also known as testosterone deficiency syndrome, is a change experienced in an older man's life that affects his physical, mental, and emotional health, leading to weakness, decreased libido, erectile dysfunction, mood swings, anxiety, insomnia, and decreased concentration.[1] It can have a mild, moderate, or severe degree of severity.[2] More than 480 000 men from the age of 40 to their 70s globally experience andropause each year, with its intensity and prevalence escalating, predominantly in older ages.[3] The prevalence of moderate to severe andropause in Iran has been reported to be approximately 68% of the elderly population.[4]

By getting older, not only does the body produce less testosterone, but levels of sex hormone-binding globulin, which is responsible for removing available testosterone from the blood, also begin to decline.[5] The common effects of andropause and a decrease in the level of sex hormones include difficulty in maintaining sexual performance, changes in elasticity (including in the skin), decreased sensitivity of nerves, reduced ability to adapt to the environment, and changes in sleep patterns. The other effects are changes in sexual function such as decreased libido, erectile dysfunction, decreased arousal, testicular shrinkage, and infertility, and physical changes

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including increased body fat, decreased muscle mass and strength, and bone density decrease. Emotional changes include decreased motivation and self-esteem, decreased memory, and depression.[4,6-8]

A common problem among older people suffering from andropause is a decline in the quality of their sexual life. The quality of sexual life is a central issue in the field of sexual health and fertility.[9,10] Factors that define sexual life quality include sexual performance, sexual ability, sexual self-efficacy, sexual satisfaction, relationship satisfaction, and overall satisfaction. There is now a consensus that sexual life quality is related to satisfaction and the overall quality of life.[11] Aging and the onset of andropause lead to changes in male sexual function, but this does not imply that men's sexual relationships should be ignored. These problems affect not only the quality of men's lives but also the sexual lives of their intimate partners.[8]

Despite the growing elderly population and the increasing demand for health programs to improve the quality of sexual life in this age group, there is little epidemiological information in this regard.[4,5] Limited studies within the country, including those performed by Najimi et al, have assessed the quality of life among older adults in Iran as moderate.[5] However, studies by Mohammadi et al and Torshizi et al suggest that nearly the majority of individuals have low sexual life quality.[12,13] Outside Iran, poor-to-moderate quality of sexual life among older adults has also been reported for elderly individuals.[1,14] Nevertheless, researchers have stated that managing the symptoms of andropause can improve the quality of sexual life in older adults and ensure intimacy and sexual pleasure by accepting age-related changes.[15]

A review of previous studies revealed that the amount of research on andropause and the quality of men's sexual life during this period varies widely across the world and in Iran. Only limited and sporadic studies have been conducted in Iran. Additionally, as far as we know, a few review studies have so far addressed factors that influence the quality of sexual life in older men with andropause.[4,5,15] The main problems we now face are the information gap and lack of awareness about the determinants of sexual life quality in older men suffering from manopause, especially within families.[11] Considering the provided information and for an understanding of the current situation, this review study was performed to identify factors affecting the sexual life quality of older adults, as indicated in the existing studies.

Methods

Design

Literature review.

Search Strategy

An initial search was conducted to explore suitable articles from descriptive, analytical, and intervention studies indexed in databases such as PubMed, ScienceDirect, Iranmedex, Google Scholar, EMBASE, Scopus, and SID published in Persian and English during 2013–2023 using several keywords including manopause, andropause, elderly men, sexual life quality, aging men, influencing factors, and predictive factors.

Inclusion Criteria

- Articles of longitudinal, cross-sectional, and intervention-type studies from the past 10 years (2013 to 2023).
- Full-text articles available in Persian or English.
- Articles focusing on the study of factors influencing manopause and the quality of sexual life of affected men in Iran or other countries worldwide.

Exclusion Criteria

The studies with response rates less than 50% among older men regardless of menopausal status (studies focusing on elderly men in general were included, which specifically addressed outcomes related to menopausal men), studies that did not have clearly defined methods, and studies conducted on men below the age of 60.

In this process, one researcher performed a literature search using entry criteria, and then some studies were eliminated based on the exit criteria. Subsequently, the findings from the reviewed articles were extracted and categorized, and the results were provided to two other researchers for review, feedback, and revisions. It is important to note that the purpose of this study was not to review therapeutic interventions for modifying andropause but focused specifically on studies investigating factors that influence the quality of sexual life. In total, 49 articles were included in the reviewed article collection, and 31 sources have been deemed to be suitable for this study, with their results being analyzed.

Results

In this study, 31 articles have been reviewed regarding the quality of sexual life in elderly men. Although the comparison of results related to the sexual life quality in menopausal and non-menopausal men was limited, some studies have indicated that andropause syndrome negatively impacts sexual life quality.

Certain studies have found that several physical factors are associated with the quality of sexual life. On the other hand, other studies have shown that various variables in the field of psychological, emotional, cognitive, and social factors also influence the level of quality of men's sexual life. Based on the results (Tables 1-3), factors that influence the quality of a man's sexual life can be categorized into three areas (i.e., physical, psychological/emotional, and cognitive/social). These tables provide information on influential factors, authors, sample sizes, locations, and significant results obtained in each category.

Discussion

This study systematically reviewed the research on the sexual quality of life in men during andropause and

Table 1. Studies Conducted in the Field of Physical Factors Affecting the Quality of Sexual Life among Older Men

Factors Affecting the Quality of Sexual Life	Authors	Country and Year of Publication	Sample Size	Important Results
Age	Najimi et al[5]	Iran, 2020	362	The quality of sexual life declined by getting older.
	Forbes et al[29]	America, 2016	6,278	Age was the strongest time-related predictor of SQOL decline.
	Kim and Kang [16]	South Korea, 2014	367	Age had a negative relationship with the quality of sexual life.
	Roseira et al[30]	Portugal, 2020	575	Older age was a predictor of lower sexual quality of life.
Health	Najimi et al[5]	Iran, 2020	362	Better general health predicted better quality of sex life.
	Kim and Kang [16]	South Korea, 2014	367	There was a significant negative relationship between chronic diseases and quality of sexual life.
Disease	Berg et al[28]	Norway, 2021	168	The decreased quality of sexual life was observed in men over 65 years old.
	Jafari Torkamani et al[21]	Iran, 2021	279	There was a significant association between diabetes and the quality of sexual life in men and patients with primary infertility.
	Reese et al [23]	America, 2011	60	Decreased sexual activity may play a role in reducing the motivation of CABG patients and the quality of sexual life.
Physical activity and exercise	Kim and Kang [16]	South Korea, 2014	367	Exercise had a significant and positive correlation with the quality of sexual life.
	Berg et al[28]	Norway, 2021	168	A decreased quality of sexual life was observed in men who exercised for less than 1 hour.
Sexual disability	Owiredu et al[31]	Ghana, 2012	235	Men with impotence had a worse quality of sexual life.
	Lew-Starowicz et al[32]	Poland, 2014	67	The severity of impotence had a clear effect on the quality of sexual life, especially in the fields of erectile dysfunction and intercourse satisfaction.
Erectile dysfunction	Hosseini Nia et al[18]	Iran, 2022	105	Erectile dysfunction caused a lower quality of sexual life.
	Tepavcevic et al[19]	Serbia, 2008	109	Erectile dysfunctions had the greatest effect on reducing the quality of sexual life.
	Sansalone et al[20]	Italy, 2014	177	The treatment of erectile dysfunction improved the quality of sexual life, especially in hypertensive patients.
	Sadat et al[17]	Iran, 2017	148	The quality of sexual life of men without erectile dysfunction was significantly higher than that of men with erectile dysfunction.
	Lee et al[22]	Canada, 2015	16	Quality of sexual life decreased in men with erectile dysfunction.
	Hamstra et al[33]	America, 2018	222	The improvement of erectile function (use of hydrogel) in men was associated with the improvement of the quality of sexual life.
Genital warts	Hosseini Nia et al[18]	Iran, 2022	105	Genital warts had a significant effect on the quality of sexual life.
Surgery (total hip arthroplasty)	Turhan et al[24]	Türkiye, 2021	32	Surgery with restriction of movement in the early days caused dissatisfaction with the quality of sexual life.
	Harmsen et al[34]	Netherlands, 2016	2,099	The quality of my sexual life increased a few days after the surgery.
	Wang et al[25]	China, 2014	Unknown	Pelvic surgery and the resolution of the problem had significantly increased relationships with sexual partners and the quality of sexual life.
Surgery (prostate)	Katherine et al[26]	America, 2018	16	Men under the study after prostate surgery had better scores in sexual function and quality of sexual life.
Alopecia	Li et al[35]	America, 2018	64	The quality of sexual life of men had negative changes under the influence of radiotherapy.
Ejaculation disorder	Lee et al[22]	Canada, 2015	16	Alopecia areata had a negative effect on the quality of sexual life.
Urinary disorder	Lee et al[22]	Canada, 2015	16	The quality of sexual life decreased in men with ejaculation disorder.
Physical rehabilitation	Alvandi et al[36]	Iran, 2014	40	The quality of sexual life decreased in men with urinary disorders.

Note. SQOL: Sexual quality of life; CABG: Coronary artery bypass graft.

investigated its influencing factors for the first time in Iran. The results revealed significant differences, which could be due to racial, religious, and cultural differences, study methodologies, and tools. Ultimately, the findings of this study were categorized into three areas, namely, physical, psychological-emotional, and cognitive-social factors.

Physical Factors

As regards the role of older adults, researchers have shown that the quality of sexual life declines with age, and aging is the most powerful predictor of poor sexual quality.[5,16] Erectile dysfunctions has been identified as another physical factor. Studies have demonstrated that men without erectile dysfunction have a significantly higher quality of sexual life.[17] Erectile dysfunction consistently leads to poor quality of sex life, and some even argue that it has the largest impact on the quality of sex life.[18,19] Sansalone et al indicated that treating erectile dysfunction can improve the quality of sex life, especially for older men with high blood pressure.[20] Various chronic medical conditions have also been examined, representing negative effects on sexual quality. For example, diabetes and primary infertility was negatively associated with men's sexual quality of life.[21] Genital warts also had a notable effect on sexual life quality.[18] Ejaculation and urinary disorders had negative impacts on men's sexual life quality.[22] Kim and Kang and Reese et al found a significant negative association between disease and sexual life quality in their studies.[16, 23] According to

Table 2. Studies Conducted in the Field of Emotional-psychological Factors Affecting the Quality of Sexual Life among Older Men

Factors Affecting the Quality of Sexual Life	Authors	Country and Year of Publication	Sample Size	Important Results
Sleep problems	Najimi et al[5]	Iran, 2020	362	Sleep problems reduced the quality of sexual life.
Stressor	Kim and Kang[16]	South Korea, 2014	367	Stress had a negative correlation with the quality of sexual life.
Self-body image	Kim and Kang[16]	South Korea, 2014	367	Body image had a positive and significant relationship with the quality of sexual life.
Depression	Kim and Kang[16]	South Korea, 2014	367	Depression had a negative and significant relationship with the quality of sexual life.
	Roseira et al[30]	Portugal, 2020	575	The quality of sexual life was negatively correlated with depression.
Alcohol addiction	Owiredu et al [31]	Ghana, 2012	235	Drinking alcohol increased impotence and reduced the quality of sexual life.
Premature ejaculation	Abraham et al[37]	England, 2008	Unknown	Dissatisfaction and stress caused by premature ejaculation were correlated with the quality of men's sexual life.
Emotional divorce	Torshizi et al[13]	Iran, 2019	92	There was a significant negative correlation between the quality of sexual life and emotional divorce.
Marital Satisfaction	Torshizi et al[13]	Iran, 2019	92	There was a significant positive relationship between the score of the quality of sexual life and marital satisfaction.
Fear of sexual activity	Reese et al[23]	America, 2011	60	Fear of sexual activity could play a role in reducing the motivation of CABG patients for sexual activity, which in turn affected the quality of sexual life.

Note. CABG: Coronary artery bypass graft.

Table 3. Studies Conducted in the Field of Socio-cultural Factors Affecting the Quality of Sexual Life among Older Men

Factor Affecting the Quality of Sexual Life	Authors	Country and Year of Publication	Sample Size	Important Results
Education	Najimi et al[5]	Iran, 2020	362	Improved education was associated with an increase in the quality of sexual life.
Gender	Cybulski et al[1]	Poland, 2018	170	Men had a higher quality of sexual life.
	Owiredu et al [31]	Ghana, 2012	235	Women had a higher quality of sexual life.
Duration of marriage	Kim and Kang[16]	South Korea, 2014	367	A positive relationship was found between longer marriage duration and higher sex life quality.
Marital status	Roseira et al[30]	Portugal, 2020	575	Marital status (being a widow) was a predictor of a lower quality of sexual life.
Employment status	Kim and Kang[16]	South Korea, 2014	367	The quality of sexual life in working people was higher than in non-working people.
	Mehta et al[38]	Kenya, 2018	252	The quality of sexual life was lower in working people than in non-working people.
Income levels	Kim and Kang[16]	South Korea, 2014	367	Higher income had a significant relationship with a higher quality of sex life.
Life companions	Kim and Kang[16]	South Korea, 2014	367	Married people had a higher quality of sexual life.
Sex with spouse	Kim and Kang[16]	South Korea, 2014	367	The frequency of sexual intercourse had a positive and significant relationship with a higher quality of sexual life.
	Mehta et al[38]	Kenya, 2018	252	Having sex was associated with an increase in the quality of men's sexual life.
The presence of multiple sexual partners	Mehta et al[38]	Kenya, 2018	252	The presence of multiple sexual partners decreased the score of the quality of sexual life.
Wife's body mass	Mehta et al[38]	Kenya, 2018	252	More body mass of wives was associated with an increase in the quality of men's sexual life score.
Sexual education and health literacy, sexual awareness	Abbasi et al[39]	Iran, 2020	70	Education related to health caused a better quality of sexual life in men.
	Taqizade Firoozjaei et al[40]	Iran, 2021	200	Educational programs could help increase sexual knowledge and improve the quality of sexual life of heart patients.
Health-related quality of life	Roseira et al[30]	Portugal, 2020	575	Quality of life was negatively correlated with the quality of sexual life.

Turhan and Buyuk, arthroplasty with limited movement in the early stages leads to dissatisfaction with the quality of sexual life.[24] However, Wang et al and Theisen et al stated that after pelvic surgery and treatment, the quality of sexual life improved significantly, which is similar to the findings of this study in men after prostate surgery.[25,26] In contrast, men who received radiation therapy experienced negative changes in sexual life quality.[27] The physical factor that has been highlighted in several studies is physical exercise. One particular study found a significant positive association between exercise and sexual life quality; more precisely, men who exercised less than an hour of their time were observed to have lower sexual life quality.[28]

Emotional-Psychological Factors

Depression has shown a significant negative correlation with sexual life quality.[16,29,30] Najimi's study indicated that sleep problems additionally decrease sexual life quality.[5] According to Kim and Kang, stress and negative body image have a negative impact on individuals' sexual life quality.[16] Some studies have highlighted the role of factors such as fear of physical activity, emotional separation with spouse, dissatisfaction with marital life, and premature ejaculation in men.[13,23- 37]

Socio-cultural Factors

Employment, sexual relations with a spouse, and sexual awareness were frequently discussed factors related to their role in men's quality of sexual life. Conflicting results have been obtained regarding the effect of employment on the quality of men's sexual lives. Kim and Kang reported that the quality of sexual life was higher among employed men in South Korea;[16] conversely, the findings of Mehta et al in Kenya indicated lower sexual life quality for employed men compared to non-employed individuals.[38] Differences in the definitions of employment, culture, and race have been pointed out to justify these contradictions, suggesting the need for further detailed research to confirm or refute these observations in different aspects of employment.

Considering the other results of this study, the availability of opportunities for multiple sexual contacts with a spouse appears to be an effective factor for men to achieve a more desirable quality of sexual life. Studies by Kim and Kang and Mehta et al have shown that a higher frequency of sexual relationships is positively and significantly associated with a better quality of sexual life.[16,38] According to the results of the conducted studies, another important sociodemographic factor that influences the quality of men's sexual life in old age is the sexual awareness of men and their spouses. Abbasi et al stated that health-related education courses led to a more desirable sexual life quality in men.[39] The findings of another study by Taghizadeh et al demonstrated that the implementation of an educational program to increase sexual awareness could significantly contribute to improving the quality of sexual life of cardiac patients.[39]

Given the existing research, including the study by Roseira et al, it is clear that marital status (being single due to divorce or the death of a spouse) predicts lower sexual life quality.[30] The duration of marital life is another influential factor in this regard, with a positive relationship between longer marriage duration and higher sexual life quality.[16] However, the presence of multiple sexual partners diminishes men's sexual life quality.[38] Studies on the role of gender in sexual life quality have produced contradictory results, as the findings of Cybulski et al and Owiredu et al demonstrated, possibly due to differences in the countries investigated in the two mentioned studies.[1,31] Unfortunately, no additional studies were found to explain this ambiguity. General education also affects the quality of a man's sexual life; for example, Najimi et al reported that there is a positive relationship between educational level and sexual life quality.[5] Another factor worth mentioning in this context is economic status. Kim and Kang found that higher income was associated with better sexual life quality.[16] Other factors that influence the quality of sexual life during andropause are listed in Tables 1–3.[32-35,40]

Conclusions

The findings of this study revealed that promoting sexual awareness through educational programs, providing opportunities for frequent sexual relationships, and addressing physical, psychological, emotional, cognitive, and social factors, and andropause could contribute to a more desirable sexual life quality in men during andropause. However, the study acknowledges that further research is needed to clarify discrepancies, particularly regarding the effect of employment on sexual quality of life.

Author contributions

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Data availability statement

The data underlying this article will be shared on reasonable request to the corresponding author.

Ethical approval

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Consent for publication

The author declared no conflicts of interest concerning the authorship and publication of this article.

Conflict of interests

The authors declared no potential conflict of interests concerning the research, authorship, and/or publication of this article.

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