

Research Article

The Role of Biological Differences in Sexual Self-Concept and Mental Health in Homosexual and Heterosexual Women

Elmira Hajaghaie^{1*}, Arya Haddadi²

¹ Department of Clinical Psychology, Faculty of Medical Science, Hamedan branch, Islamic Azad University, Hamedan, Iran.

² Behavioral Disorders and Substance Abuse Center, Hamadan University of Medical Sciences, Hamadan, IRAN

*Corresponding Author Email: ehajaghaie@yahoo.com

Submission: 17-06-2022

Revised: 15-12-2022

Accepted: 22-12-2022

ABSTRACT

Nowadays, experts and health organizations consider mental emotions and sexual well-being the most crucial parts of sexual self-concept and mental health. Numerous variables can influence women's sexual self-perception and mental health. Consequently, this study aimed to examine the parameters associated with sexual self-concept and mental health in lesbian and heterosexual women. In this scoping review study, researchers performed computer searches on databases, Google Web, SID, Scholar Scopus, and PubMed, using keywords. Finally, the complete data of 29 articles have been used in this review article. Factors related to self-concept and mental health can be also enumerated, which were generally studied. The findings of the present review show that sexual self-concept and mental health as a key indicator in sexual activity and predict sexual behavior are influenced by various factors which includes the effect of hormones, genetic differences, age, gender, marital status, race, impotency and various diseases. Therefore, it seems that paying attention to relevant factors to the characteristics of each person can improve women's sexual health. In order to increase the depth and breadth of our knowledge of factors related to and affecting mental health and sexual self-concept, conducting studies with a qualitative approach is also recommended.

Keywords: Sexual self-concept, Mental health, Female, Homosexuality, Heterosexuality

1. INTRODUCTION

Numerous variables impact sexual self-concept as an essential indicator of sexual activity and predictor of sexual behavior. Sexual self-perception is a vital component of sexual health and the nature of sexuality. It is the cognitive viewpoint on the sexual parts of the self and pertains to the individual's understanding of him or herself as a sexual being (Potki, Ziaei, Faramarzi, Moosazadeh, & Shahhosseini, 2017).

Sexual behavior, which is one of the main needs and one of the dimensions of a person's identity, is determined based on sexual orientation. Sexual orientation in men and

women is represented in three forms: heterosexuality (tendency to the opposite sex), homosexuality (tendency to the same gender) and bisexuality (tendency to both sexes) (Jennings & de Lecea, 2020) Heterosexuality is defined as a stable pattern of arousal towards the opposite sex (Swaab, Wolff, & Bao, 2021). Heterosexuality involves the majority of sexual orientations that include biological, psychological and social aspects (Jennings & de Lecea, 2020) These tendencies are represented in a diverse set of physiological, behavioral and psychological characteristics such as sexual desire, romantic relationship, physiological arousal, attractions, imaginations and personal identities (Swaab et al., 2021). The most common method to evaluate the sexual orientation is recognition and experience of individual from their own (CE, 2018).

Sexual orientation refers to the degree of sexual attraction of each person to women or men and is one of the fundamental variables to understand human sexual behavior. The meaning of sexual orientation is how a person is sexually drawn to either the same or opposite gender (Garbarski, 2021).

Homosexuality refers to behavior that reflects a person's sexual orientation toward his or her same sex. Homosexuality is a person's definition of self and a person's innate preference and desire for the same sex (Talbot, 2020). Homosexuality is not limited to the homosexual psyche, and physiological factors are also involved. Among the physiological factors influencing the formation heterosexual orientations are chromosomal structure, secreted sex hormones during pregnancy, and differences in the brain.

2. Method

This scoping review study is performed in the following steps

1- Formulation of the research question

In terms of sexual self-perception and mental health, what are the physiological differences between lesbian and heterosexual women?

2- Search Strategy; Based on the research question, the researchers first extracted the relevant keyword strategy using Medical Subject Heading (MeSH) and independently conducted initial searches in the Google Web, SID, Scholar Scopus, and PubMed databases. Using the keywords mental health, sexual self-concept, homosexuality, Heterosexuality was extracted between January and August 2022.

Also, with Persian equivalent keywords, the items mentioned above were searched in Persian electronic databases.

First, 160 entries were found through searches in databases and 40 entries through searches of other sources (including searches through reference lists). After the duplication step, 15 articles were deleted by Mendeley software. First, the abstracts of the papers were evaluated to determine which 29 matched the inclusion criteria.

3. Discussion

By reviewing the texts and findings in response to the main question of the research, the physiological differences between heterosexual and homosexual women, three main factors were identified and the main influential factors in the discussion of mental health and sexual self-concept were examined.

Some research has been able to identify structural differences between the brains of homosexuals and heterosexuals. There is an area in the human anterior hypothalamus called the third intercellular nucleus (INAH-3) that has been shown to vary in size and number of cells between heterosexuals and homosexuals. Also, some areas of the anterior hypothalamus in humans can be stimulated by hormone-like steroids (such as pheromones), and this stimulation varies depending on gender or sexual orientation in men and women.

3.1. HORMONES

Evidence for the effects of fetal hormones on human sexual orientation has been found, directly and indirectly. Among the direct evidence, we can emphasize the role of fetal hormones (such as androgens) and their effect on key points in the fetal brain (such as INAH-3) during fetal sex differentiation. Many physical and behavioral differences between homosexuals and heterosexuals are affected by fetal hormones. These characteristics include differences in the ratio of finger lengths between homosexuals and heterosexuals; facial delicacy or roughness. Therefore, it can be concluded that fetal hormones play an important role in shaping the sexual orientation of the child.

Self-concepts are sometimes defined in developmental literature as self-perceptions belonging to specific domains, roles, or social circumstances. Several studies in a community sample of female adolescents looked at the relationship between brain activity during self-evaluation of social traits and maturation (age and pubertal development). A functional MRI was performed on each participant (N = 143; mean age = 11.65; range = 10.0-13.0). To assess pubertal development, self-report and morning salivary testosterone, dehydroepiandrosterone, and estradiol concentrations were used. Contrary to popular belief, age and pubertal development had no effect on brain activity during self-evaluation. The relationship between activity in the ventromedial prefrontal cortex (vmPFC) and the pregenual anterior cingulate cortex (pgACC) and trial-level self-evaluative behaviour was studied further. Higher vmPFC and pgACC activity during self-evaluation were linked to an increased propensity to endorse negative adjectives and a decreased propensity to support positive adjectives. (Barendse et al., 2020).

3.2. GENETICS

To examine the influence of genetics on sexual orientation, self-concept, and mental health, two very separate types of study are utilized: research on twins and molecular genetics. The purpose of research on twins is to estimate the overall importance of the effect of genetics on environmental effects on sexual orientation. Molecular genetics studies are also trying to find specific genes that affect sexual orientation.

3.3. STUDY ON TWINS

The study of twins quantifies the effect of genetics on the environment. The most straightforward type of this study examines identical twins who are separated shortly after birth and raised in separate, unrelated environments. However, identical twins who are separated from birth are very rare, and identical twins who are at least one of them homosexual are even rarer, so classical studies of twins have been performed on those who have grown up together (because of the greater number). These studies allow us to measure several variables: the influence of genetics, the influence of the common

environment, and the influence of the different environment on twins who grow up together; the common environment leads to similarities, and the common environment leads to differences.

One of the drawbacks of this type of research on twins is that their own responses have been used to report their sexual orientation. In this way, some twins may respond incorrectly, and many may deny their homosexual interests, so the actual mismatch between identical twins' sexual orientation may be less than reported.

Another drawback of this type of research is the sampling method. Many studies (especially older research from the 1980s and 1990s) have used purposive sampling. In purposive sampling, heterosexual twins are specifically identified and selected for research through, for example, advertising or word of mouth. In this method, there is a high probability that the sample set is directional and does not represent the real community, because twins who have the same sexual orientation are more likely to volunteer in this research. Therefore, the research results are biased, and as a result, the degree of heredity or genetics of sexual orientation is calculated more than the actual amount.

Despite the mentioned problems, in general and considering all the studies, it can be concluded that about one third of the changes (variations) in sexual orientations are due to differences in genes and therefore sexual orientation in humans is relatively inherited. By the same token, the impact of a non-shared environment is 0.43, and the impact of a shared environment is a residual value of 0.25.

It is still unknown how environmental vs genetic variables influence brain correlates of self-concept. To achieve this, a validated self-concept fMRI test was presented to 345 7- to 9-year-old twins. Participants were asked if they possessed academic and social traits in the self-concept condition, whereas trait categorization was required in the control condition. The medial prefrontal cortex (mPFC) was more active for self-processing needs than for control situations, according to self-processing activation evaluations ($n = 234$). Greater dorsolateral prefrontal cortex (DLPFC) activity was associated with higher academic self-evaluation. In a study of 166 complete twin pairs, behavioural genetic modelling revealed that inherited variables explained 25-52% of the variance in academic self-evaluations, while shared contextual factors explained 16-49% of the variance in social self-evaluations. The neural genetic modelling of friction in mPFC and PFC activation for academic self-evaluation revealed genetic and environmental factors. Nonetheless, shared ecological variables influenced anterior PFC activation for social self-evaluations. This suggests that the environment may have a greater influence on the behavioural and neurological components of young children's social self-concept. This is the first study to demonstrate, in a sample of young twins, that self-concept differs according to hereditary and environmental influences, depending on the individual domain (van Drunen et al., 2021).

Separate research aimed to measure the extent to which genetic and environmental factors caused the observed associations. This study comprised a sample of 1019 twins and higher order multiples in grades three through eight from the Texas Twin project that was racially and socioeconomically diverse (Harden, Tucker-Drob, & Tackett, 2012). Five hundred thirty-eight different sibling pairs were included in the sample, 481 of which were twin pairs and 57 of which were triplet pairings. Three hundred fifty-eight children who provided data were identical twins (monozygotic), whereas 661 were fraternal

twins (dizygotic). The participants' ages ranged from 7.8 to 15.5 years ($M = 10.79$, $SD = 1.75$) 50.4% of the whole sample ($N = 514$) was female. The results distinguished cognitive and personality elements of self-regulation at both the observable and inherited levels. Individual variations in reading ability were gradually impacted by educationally important personality factors, notably a component of openness expressing intellectual curiosity and self-concept. The overall genetic diversity in arithmetic and reading ability was explained by measures of cognition, self-regulation, and other educationally significant personality qualities (Malanchini, Engelhardt, Grotzinger, Harden, & Tucker-Drob, 2019).

3.4. MOLECULAR GENETIC

Just as studying twins in general determines how much a set of genes influences the occurrence of a trait, molecular genetic studies have the ability to identify the specific genes that are responsible for creating that trait, as well as the path that leads from the gene to the trait.

The word chromosome is made up of two parts: the prefix choro (shade-color) and the word some (body) because they microscope are stained under the inside the nucleus of cells, the DNA molecule is packaged in an intricate coil-like structure called a phantom or chromosome. Each human has 46 chromosomes, which are divided in half during fertilization. Two of these 46 chromosomes are sex chromosomes, which determine sex. During fertilization, each human receives 23 chromosomes from the father's sperm and 23 chromosomes from the mother's ovule. A healthy human has 23 pairs of chromosomes. 22 pairs of chromosomes that determine hereditary origins other than sex (male and female) are called autosomes. Another pair is called the sex chromosome. Humans biologically female inherit one X chromosome from their father and another X chromosome from their mother. Humans biologically male always inherit their X chromosome from their mother. (<https://www.zoomit.ir/>).

One of the most famous studies in this field is a genetic continuity study in 1993 that identified an area on the sex chromosome called the Xq28 that was responsible for creating sexual orientation in men. Another noteworthy point in this article was the evidence that homosexual men were more likely to have homosexual male relatives on the maternal side than the paternal side, and such a finding was consistent with the presence of a gene for the trait on the X chromosome. Although some studies with a larger number of samples were able to confirm the results of this study, this finding could not be repeated in some other studies.

Also, in one of the most recent and extensive genome-matching studies to date (with a sample population of more than 450,000 men and women), there was ample evidence that sexual orientation is most likely a characteristic of polygenesis (influenced by several genes). This study identified five Snape regions on 5 chromosomes (4, 7, 11, 12, and 15) that were related to a person's sexual orientation. This research is one of the most reliable studies that proves the relationship between genes and the type of sexual orientation and homosexual behavior, and in addition, it is one of the few genetic studies that has examined women in the samples.

Based on this cross-sectional study, 118 female BRCA1/2 carriers from an Irish university hospital completed questionnaires. As outcomes, state anxiety and physical and mental health-related quality of life were investigated (HRQOL). A hierarchical multiple

regression analysis was performed. 44% of subjects had clinically significant levels of state anxiety, while only 12% had clinically significant levels of health anxiety. Physical functioning and quality of life were significantly related to dysfunctional coping methods. BRCA1/2-specific self-concepts and health anxiety are critical considerations in the adjustment to BRCA1/2 confirmation. (Butler et al., 2020).

3.5. MENTAL HEALTH

In addition, mental health is the efficient functioning of cognitive processes that leads to constructive things, meaningful connections with others, and the ability to adapt to change and deal with problems. It is also a feeling of empowerment and well-being that enables a person to deal with the stresses of daily life (Fusar-Poli et al., 2020).

Mental health is associated with improved interpersonal communication and better individual performance in various aspects of life (Fusar-Poli et al., 2020). The relationship between the sexual self-concept and emotion expression, self-esteem, feelings of depression, loneliness, and cognitive function has been established. Higher levels of sexual activity are related with better physical health, whereas a more positive sexual self-concept is associated with improved mental health and communication quality.

Sexual self-concept (Speculum) is one of the components of the overall concept of self-concept. The term is defined in different ways: a person's attitude towards himself as a perception of his sexual status (Lotfollahi, Riazi, Omani-Samani, Maroufizadeh, & Montazeri, 2021). People govern their perceptions, beliefs, and behaviors depending on their sexual self-concept, which consists of their feelings, perceptions, and beliefs towards sex (Lotfollahi et al., 2021).

Sexual self-concept emerges during puberty and usually months or years prior to a first sexual experience, despite the fact that a variety of factors may impact its formation. In the meantime, sexual self-concept is intricately tied to and affects people's sexual behavior and attitudes, as well as being the source of decisions and evaluations of current and future sexual actions.

It is essential to address the positive parts of sexual self-concept that contribute to the physical, emotional, and mental wellness of persons. Negative and unrealistic ideas also result in irritation and mistrust, and perhaps most crucially, a diminished sexual self-concept. It may be claimed that women's sexual ideas and attitudes (irrational beliefs and opinions) are the most significant factor in lowering sexual self-concept and the most influential element in the development of sexual dysfunction is genetics.

Sexual activities and experiences are influenced by a person's perception of himself as a sexual creature (Herbenick et al., 2021) The evaluation of sexual self-concept is therefore a significant predictor of the occurrence of sexual activities and can be useful in boosting their mental-sexual health (F, L, & F, 2021).

Few studies on the sexual self-concept of homosexual women and its related aspects have been published in databases, based on the findings of the accessible sources. In light of the fact that sexual self-concept is one of the most important aspects of sexual health in homosexual women, the purpose of this study was to examine the factors related to sexual self-concept in homosexual and heterosexual women in order to provide a solid foundation for understanding sexual self-concept and mental health.

Biological factors related to sexual self-concept were classified into six subcategories:

A) Age: Sexual self-concept is unstable in adolescence, but begins to develop with the formation of puberty. Therefore, older adolescents have a lower negative sexual self-concept compared to younger adolescents. Anxiety and worry about sexual issues seem to decrease with age and the frequency of sexual intercourse, followed by an increase in sexual experiences, followed by the development of sexual self-concept, which affects a person's future behavior (Aubrey, 2007; Bolourian & Ganjloo, 2007; Hensel, Fortenberry, O'Sullivan, & Orr, 2011; MS & MS, 2013; Tao, Coates, & Maycock, 2011; Yazdani, Mahmoodi, Azin, & Qorbani, 2019; Ziaei, Rad, Roshandel, & Aval, 2018)

B) Gender: According to studies, masculinity is highly connected with sexual self-concept variables. Women with a favorable sexual self-image are more likely to appear romantic, beautiful, and sexy, to engage in open sexual practices, and to not be constrained by negative feelings such as shame.

However, women with a poor sexual self-concept are conservative, timid, limit their sexual conduct, appear less emotionally and romantically invested, and get worried and avoid sexual situations. In contrast, men with a good sexual self-concept are more likely to appear romantic, strong, and free, engage in more sexual activity, and have more sexual partners than men with a poor sexual self-concept (Cyranski & Espindle, 1999; Deutsch, Hoffman, & Wilcox, 2014; Evans-Paulson, Widman, Brasileiro, Maheux, & Choukas-Bradley, 2021; Nik, Modarres, & Ziaei, 2018; Rellini & Meston, 2011; Vandenbosch & Eggermont, 2016). Women have significantly higher scores than men on sexual self-concept subscales such as sexual fear and sexual depression while sexual self-esteem and sexual optimism in women are less privileged than men (Nik et al., 2018).

C) Marital status: Individuals who have never been married are more likely to have higher sexual anxiety, less sexual assertiveness and sexual self-control, and greater sexual dread and apprehension in their sexual self-concept than those who have been married. People who have been divorced report more sexual self-efficacy, a stronger propensity to avoid high-risk sexual activities, and, ultimately, increased sexual fear and anxiety. A positive self-concept also predicts a person's sexual activity and number of sexual partners throughout their sexual life (Nik et al., 2018).

D) Race: Whites compared to other ethnic groups in terms of subscale of sexual self-concept (such as sexual self-efficacy), belief in their ability to have effective sexual function (sexual self-esteem) positive assessment of their personal ability to perform healthy sexual behaviors and experience sex and have more sexual satisfaction. Contradictory and negative concepts in the sexual desires of black women can manifest in the form of anxiety, incompetence and sexual problems. Because religious prejudices and sexual orientations are so closely linked, especially in black women, race alone does not seem to be an independent factor influencing sexual self-concept and is influenced by other factors (Nik et al., 2018; Shakespeare, 2030).

E) Impotency: Impotency is a collection of physical or psychological characteristics that deprive individuals of social autonomy and independence from others (Riazi, Lotfollahi, Omani-Samani, Maroufizadeh, & Montazeri, 2020) There is evidence that impotence impacts sexual self-esteem and that both men and women experience sexual despair. Severe impotence is associated with increased sexual despair and decreased sexual self-

esteem. The age of impotence onset is a significant component in a person's sexual self-concept because self-perception is created and evolves during childhood. The older the age of impotence onset, the lower the favorable self-perception.

F) Diseases: According to studies, diseases such as breast cancer, genital cancer, heart attack, and sexually transmitted infections are highly connected with many aspects of sexual self-concept. Cancer-stricken women are more susceptible to mental anguish and sexual dysfunction than healthy women and individuals with benign tumors. A healthy sexual self-concept protects patients from developing depressive symptoms. In contrast, a combination of a poor sexual self-concept and low sexual satisfaction may put cancer survivors at greater risk for psychological discomfort (Hamidi et al., 2022; Salehi, Tavakol, Shabani, & Ziaei, 2015; Shakespeare, 2030). In patients with heart stroke, sub-scales of sexual self-concept (sexual distress, sexual depression, and sexual satisfaction) have a significant effect on sexual activity in these patients (Shakespeare, 2030).

Infection with sexually transmitted infections like genital herpes and genital warts is a significant sexual event that can have negative effects on sexual desire and various aspects of sexual self-concept, so that anxious and depressed individuals are more likely to fear having sex than those who are not infected. It has been shown that attributes connected with sexual self-concept, such as optimism, self-esteem, and sexual pleasure, are low in this group, and that ethical concerns in interpersonal communication produce challenges and inconsistencies for these persons (Bennett, Rebafka, Carrier, Cook, & Edwards, 2022; Parry, 2012).

Psychological factors related to women's sexual self-concept

Psychological factors related to women's sexual self-concept were classified into 3 categories:

A) Body image: is a person's attitude and perception of their looks, as well as their and others' views about the body. In a sense, body image dissatisfaction can restrict sexual practices and diminish the quality of sexual experiences (Hamidi et al., 2022).

B) History of sexual abuse in childhood: A history of sexual abuse in childhood can have an impact on the development of a healthy sexual self-concept and expose people to sexual disorders. There is a link between childhood sexual abuse and sexual dysfunction in adulthood, including disorders of desire, arousal, and orgasm, as evidenced by the influence of sexual self-concept on sexual difficulties among women with a history of childhood sexual abuse. These women have a higher negative sexual self-concept and a lower positive sexual self-concept (Assarzadeh R, Khalesi ZB, & F, 2021).

C) Mental health: Mental health can influence individuals' sexual self-perception. In schizophrenia and depression, negative feelings and sexual ineptitude have been observed to be more prevalent. Patients with depression cannot enjoy their sexual life and eventually lack the desire for daily activities. Low self-esteem, sexual inadequacy, and feelings of worthlessness lead to altered sexual self-concept in depressed persons (Zanin et al., 2022).

Among the factors that affect mental health:

1) Premenstrual syndrome (PMS): This syndrome is related to mild hormone deficiency and imbalance of estrogen and progesterone hormones with negative mood symptoms, uncontrolled behaviors, and physical discomfort from about ten days before menstruation to the end of this period. Attention to these symptoms is necessary and if

they are severe, it is necessary to treat. Despite the stress in this period and mood swings, women can usually do well in their assigned tasks, but this is not a reason for others to pay attention to their special needs in this period (azari sahar, Haddadi A, & MI, 2021). No study on PMS in homosexual women was found in the reviewed literature.

2) Fertility: It is the crucial distinction between women and men. Women have been endowed with a specific quality that is a heavenly gift, and that is the planet's creation. Fertility is the turning point of pregnancy, which is one of the most crucial times in a woman's life, during which she typically handles psychological and physical stress effectively (Grieger, 2020). A study of the literature suggests that the danger of adolescent pregnancy is two to ten times higher for gay kids than for heterosexual youth (Leonardi, Frecker, Scheim, & Kives, 2019).

The most important psychological problems about a year after delivery are as follows:

- A) Sadness after childbirth
- B) Postpartum psychosis
- C) Pre-delivery depression

Attention to treatment and care in these diseases, especially postpartum depression, is important both in terms of its impact on women and on married life and child care, and the prevention of neglect and child abuse (Payne & Maguire, 2019).

3) Abortion: In addition to the physical complications that threaten women, which sometimes lead to death or long-term complications, in terms of psychological process abortion is a loss accompanied by reactions of denial, shock, depression, feeling empty, anger, the loss of self-confidence, and mental preoccupation with not being pregnant again. In addition to the usual physical and mental care, emotional support, especially from spouses, can be very effective in going through this period (Horvath & Schreiber, 2017). In the reviewed literature, no research was conducted on abortion in homosexual women.

4) Menopause: With the increasing life expectancy in women, menopause has become one of the longest periods of their lives. Symptoms of this period are affected by hormonal changes, especially estrogen deficiency, and also by social and cultural factors, the most important of which are the onset of acute or chronic diseases in a spouse or close relatives, death of a spouse, or child`s leaving home represented with symptoms of depression called "empty nest syndrome". Retirement of wife or spouse, care of grandchildren in addition to these negative factors are necessary, which should also be pointed to positive factors such as the opportunity to engage in travel and hobbies (Minkin, 2019). Among homosexual women, because both couples experience menopause, it can have a negative effect on their sexual health, emotional relationships, and mental health compared to heterosexual women (Jannini & Nappi, 2018).

5) Drug abuse: drug use directly and indirectly threatens women.

Although drug use among women in our country is limited, due to cultural issues, women drug users are more exposed to physical and psychological harm caused by it. Specific treatment facilities for women are limited and their presence is associated with frequent stigma. Most treatments are only for the men being tested and therefore do not apply to the specific condition of the women. Indirectly, women are one of the victims of

violence and aggression by men who use drugs from childhood to adulthood, the effects of which range from physical and sexual abuse, suicide, death to crime (Ait-Daoud N et al., 2019). Some research indicate that a greater proportion of bisexual women than heterosexual women engaged in sexual activity when under the influence of most substances (Lawn W, Aldrige A, Xia R, & AR., 2019).

Multiple factors, including body image, a history of sexual abuse, and mental health, were found to influence various components of sexual self-concept. In addition, some diseases, such as sexually transmitted diseases, are transferred through sexual contact. (Bennett et al., 2022), schizophrenia and depression (Peitl MV, Peitl V, & E., 2009) can also affect individual's self-concept.

4. Conclusion

This study examined the factors that influence the sexual self-concept and mental health of homosexual and heterosexual women. Sexual self-concept is the understanding of a person's sexual urges and preferences that is created in the context of social expectations and psychosocial development. During sexual life, this emotional phenomena helps develop awareness, identity, and self-esteem (Arousell J & A., 2016). Sexual self-concept is intended to provide insight into the sexual elements of each individual. Sexual activities and experiences are influenced by a person's perception of themselves as sexual beings (Nik et al., 2018). Some studies shown that the sexual self-concept in homosexual women is more negative than that of heterosexual women (Kidd JD, Everett BG, Corbeil T, Shea E, & TL., 2022).

Multiple variables, including age, gender, race, impotence, and marital status, were found to influence various components of sexual self-concept (Hensel et al., 2011; Nik et al., 2018; Shakespeare, 2030) as well as some diseases such as sexually transmitted diseases (Bennett et al., 2022). Schizophrenia and depression can also impact an individual's sexual self-perception. Homosexual women are also more susceptible to depression as a result of the difficulties that always confront sexual minorities (Martin-Storey A, Recchia HE, & JB., 2021). Consideration should be paid to the impact of social factors including social networks, family, and colleagues on the formation of sexual self-concept (Guyon R, Fernet M, Canivet C, Tardif M, & N., 2020). Studies have shown that homosexual women endure more social pressure than heterosexual women since childhood. Including suppression and opposition of parents and isolation among peers (Martin-Storey A et al., 2021). The results of studies showed that age is one of the predictors of sexual self-concept. Middle-aged women (11-61 years (compared to younger women) 21-21 years (higher sexual self-concept) (Nezamnia M, Irvani M, Bargard MS, & M., 2020; Nik et al., 2018). Research to justify the relationship between age and sexual self-concept states that younger women less experiencing themselves and their sexual partners report more sexual anxiety (Nezamnia M et al., 2020; Nik et al., 2018).

In terms of psychological variables, research indicates that women with a background of childhood sexual abuse have much more sexual issues, a lower positive sexual self-concept, and a severe negative sexual self-concept than the control group (Assarzadeh R et al., 2021). The association between sexual self-concept and anxiety and concern over body image is bidirectional, with a higher sexual self-concept associated with little anxiety and concern. As the results of some research show, anxiety is significantly higher in homosexual women than in heterosexual women (Wu & Zheng, 2021). Have

sexual satisfaction, marital compatibility and excellent emotional relationship, and people with negative sexual self-concept control romantic sex and report more sexual problems (Guyon R et al., 2020; Nik et al., 2018). In a study, it was observed that homosexual women report less sexual satisfaction and marital compatibility than heterosexual women (Holt, Chung, Janssen, & Peterson, 2021). Significant sexual events influence the positive and negative elements of general sexual self-concept. In order to promote the physical and mental health of women, it is vital to identify these components by analyzing the good qualities of sexual self-concept (Bolourian & Ganjloo, 2007).

This is one of the strengths of the present investigation, as no previous review has been undertaken under the heading of the present study. In the present study, however, the studies were not examined systematically, and the quality of the submitted papers was not verified. In addition, only Persian and English studies with available full texts were utilized. This study provides a detailed evaluation of the elements linked with sexual self-concept and mental health, despite its limitations. To increase the depth and breadth of our understanding of the factors related to and influencing sexual self-concept, it is recommended that in future research, quantitative or qualitative studies on sexual self-concept in women and the role of psychological, educational, and comprehensive counseling on the promotion of sexual self-concept in women be conducted.

Numerous variables impact sexual self-concept as an essential indicator of sexual activity and predictor of sexual behavior. On biological, psychological, and social levels, researchers explored aspects linked with women's sexual self-concept. Due to the importance and growth of women's sexual self-concept, it is necessary to participate in long-term planning in this area. Since sexual self-concept occurs in adolescence and often months and years before sexual contact, it can provide the foundation for having a better sexual self-concept in adulthood and therefore good physical and mental health at that age; therefore, it is crucial to hold educational classes and consider texts on the subject in order to clarify the meaning of sexual self-concept, its nature, and its psychological structure and dimensions.

Furthermore, combining psychological therapy with sexual health approaches may improve adolescents' sexual self-concept and mental health. Given that the sexual self-concept of women is a multidimensional concept shaped by a variety of factors, it appears that a multifaceted approach involving individuals, families, and social institutions is required to institutionalize the sexual self-concept of girls and women and improve their health. Policymakers can use the study's findings to develop strategies to increase the positive aspects of girls' and women's sexual self-concept in the aforementioned domains.

Table 1

Factors related to Sexual Self-Concept

Factors related to women's sexual self-concept	Year	Researcher	
The results indicate that women with a positive sexual self-concept engage in more sexual activity, have more sexual encounters, and report greater	2022	Zanin	1

Factors related to women's sexual self-concept	Year	Researcher	
sexual satisfaction than women with a negative sexual self-concept.			
Herpes or HPV has a considerable detrimental effect on areas of sexual self-concept, according to the findings. Important psychological and sexual variables include sexual self-concept and subscales relating to sexual anxiety and sexual self-efficacy. It is necessary to pay attention to the patient's psychological and sexual problems in addition to clinical work.	2022	Bennett	2
Positive sexual self-perception may protect patients from depressive symptoms, according to the findings. A combination of a negative sexual self-concept and low sexual satisfaction may also raise the likelihood of psychological suffering, such as depressive symptoms. These findings support the use of sexual self-perception as a predictor of sexual consequences in cancer survivors.	2022	Hamidi	3
Important psychological and sexual variables include sexual self-concept and subscales relating to sexual anxiety and sexual self-efficacy. It is necessary to pay attention to the patient's psychological and sexual problems in addition to clinical work.	2021	Evans-Paulson	4
Individual differences in sexual self-concept are related to both sexual motivation and sexual satisfaction	2020	Riazi	5
A history of child sexual abuse indicates a connection between childhood sexual abuse and sexual dysfunction and sexual self-concept in adulthood; women with such a history have greater sexual issues, a lower positive sexual self-concept, and a higher negative sexual self-concept.	2020	Guyon	6
Women have the proper foundation for the correct sexual orientation; hence, women's sexual health can be enhanced based on associated elements, such as emotional connection with the husband and sexual	2018	Nik, Maryam Mohammadi	7

Factors related to women's sexual self-concept	Year	Researcher	
satisfaction, as well as sensitivity to the unique qualities of each individual.			
People's religious views and beliefs affect sexual function and sexual self-concept of patients.	2016	Arousell	8
Media programs play an important role in shaping and developing the beliefs, expectations and sexual self-concept of young people.	2016	VandanBosch	9
Impotent men and women may have higher self-esteem, anxiety, and despair, but psychological, social, and environmental variables might assist impotent persons acquire a positive sexual self-concept through marriage and decrease their negative self-concept.	2015	Salehi	10
Sexual self-concept begins to develop with sexual maturity.	2014	Deutsch	11
Sexual health, mental health, and general well-being are positively correlated with sexual pleasure, sexual self-esteem, and sexual interaction, according to the research.	2013	Andreson	12
Sexually transmitted infections are an important sexual event that can have negative effects on sexual integrity and various dimensions of sexual fantasies.	2012	Parry	13
This is partly due to the paucity of resources available to impotent individuals and the numerous daily hurdles they confront.	2011	WHO	14
In adolescence, anxiety and concern about sexual difficulties lessen with age, and a person's sexual self-concept develops, which influences future behavior.	2011	Hensel	15

Factors related to women's sexual self-concept	Year	Researcher	
Evidence reveals a connection between sexual self-concept and sexual difficulties in women with a history of childhood sexual abuse (CSA).	2011	Relini	16
In every area of sexual perception and sexual self-concept, it can be stated that patients with schizophrenia and depression vary from healthy individuals.	2011	Peitl MV	17

Table 2

Factors related to Mental Health

Factors related to women's Mental Health	Year	Researcher	
PMS is caused by a slight hormone deficit and imbalance of estrogen and progesterone hormones, manifesting as negative mood symptoms, uncontrollable behavior, and physical discomfort from around ten days prior to menstruation till the conclusion of this period.	2021	Azari	1
The primary causes of reduced sexual function in oTW are sexual discomfort and lubrication difficulties, emphasising the importance of preoperative counselling to set realistic surgical expectations and educate patients on proper neovagina care.	2021	Vedovo	2
Bisexuality with coincidental attraction was usually associated with poorer mental health outcomes than other combinations of identification and interest, but this was not always the case. Finally, heterosexuality with branching attraction was associated with worse mental health outcomes than heterosexuality with coincidental appeal, but it was associated with better mental health outcomes than other sexual identity and charm combinations.	2021	Garbarski	3
Good mental health is a state of well-being that allows a person to deal with everyday stresses and function normally. Both universal and tailored therapy can help promote mental health. The core domains of mental health are 1)Physical Health, 2)Mental Health, 3)Life quality, 4) Life Meaning, 5)mental health literacy, 6)cognitive skills, 7)self-perception and values, 8)Emotions, 9)Behaviors, 10)mental skills, 11)self-	2020	Fusar-Poli	4

Factors related to women's Mental Health	Year	Researcher	
management strategies, 12) Relationships with family and significant others and 13) attitudes towards mental disorders.			
Leventhal's common sense model of self-regulation emphasizes the importance of specific sickness beliefs on psychological outcomes. Little is known about the connection between such beliefs and BRCA1/2 adjustment. Moreover, an individual's self-perception views may be related to genetic diseases and psychological health. Leventhal's common sense model of self-regulation underlines the importance of specific sickness beliefs on psychological outcomes.	2020	Butler	5
Fertility is the turning point of pregnancy, which is one of the critical periods in women's health that women usually cope well with psychological and physical stress	2020	Grieger	6
This research updates the treatment of menopausal women, focusing on the symptomatology and health issues linked with the decline of all reproductive hormones. Modifications to one's lifestyle and non-medical procedures are investigated, but no hormonal and hormonal medicines.	2019	Minkin	7
Given that women's addictions progress more quickly than men's, it's critical to understand and address these differences in order to develop individualised prevention and treatment programmes for women, such as trauma assessment and management, identification and intervention for medical and psychiatric founder abnormalities, economic freedom, childbirth, and child care.	2019	Ait-Daoud	8
Sexual health is critical to an individual's, couple's, and family's physical and emotional well-being. According to the World Health Organization, sexual health, a pleasurable sexual life, and sexual awareness are important human rights, and therapy is critical for starting a conversation about people's sexuality. Individual sexual self-perception is a significant determinant of sexual health. Sexual counselling based on sexual self-concept is beneficial for the preservation and improvement of women's sexual health.	2018	Ziaei	9
There are no substantial differences in depression rates between women who receive an abortion and those who are denied one. Anxiety rates are initially greater in	2017	Horvath	10

Factors related to women's Mental Health	Year	Researcher	
women who are denied abortion services. These findings should be reflected in women with unwanted pregnancies' decision-making counseling.			
This review demonstrates that knowledge concerning observant Muslims' personal experiences with sexual and reproductive health-care concerns is minimal, hence giving insufficient evidence for the development of effective practical guidelines for sexual and reproductive health care aimed at Muslim patients. Successful sexual and reproductive health outcomes for Muslims need both researchers and practitioners to recognize religious variety and variability, as well as the capacity of individuals to negotiate Islamic edicts.	2015	Arousell	11
According to the findings, Roman Catholic schizophrenia patients report more sexual pleasure than Eastern Orthodox and atheist schizophrenic patients. Regarding sexual pleasure and aspects of sexual self-perception, there were no statistically significant differences between depressed individuals with various religious views. In addition, there is a significant distinction between healthy persons when religious views are considered.	2009	Peitl	12

ACKNOWLEDGEMENTS

The authors are appreciative of all the researchers whose work was utilized.

CONFLICT OF INTEREST

The authors declared no conflicts of interest.

AUTHORS' CONTRIBUTIONS

All authors contributed to preparing this article.

5. References

- Ait-Daoud N, Blevins D, Khanna S, Sharma S, Holstege CP, & P., A. (2019). Women and Addiction: An Update. *Med Clin North Am.*, 103(4), 699-711. doi:10.1016/J.MCNA.2019.03.002
- Arousell J, & A., C. (2016). Culture and religious beliefs in relation to reproductive health. *Best Pract Res Clin Obstet Gynaecol.*, 32, 77-87. doi:10.1016/J.BPOBGYN.2015.08.011
- Assarzadeh R, Khalesi ZB, & F, J.-K. (2021). Sexual self-efficacy and its related factors among married women of reproductive age. *Afr Health Sci.*, 21(4).
- Aubrey, J. S. (2007). Does television exposure influence college-aged women's sexual self-concept? *Media Psychology*, 10(2), 157-181.

- azari sahar, Haddadi A, & MI, E. (2021). The Effect of Cognitive-Behavioural Stress Management Training on Reducing Depressive Symptoms in Women with Premenstrual Syndrome *Heal Res J*, 7(1), 32-42.
- Barendse, M. E., Cosme, D., Flournoy, J. C., Vijayakumar, N., Cheng, T. W., Allen, N. B., & Pfeifer, J. H. (2020). Neural correlates of self-evaluation in relation to age and pubertal development in early adolescent girls. *Developmental cognitive neuroscience*, 44, 100799.
- Bennett, C., Rebafka, A., Carrier, J., Cook, S., & Edwards, D. (2022). Impact of primary and recurrent genital herpes on the quality of life of young people and adults: a mixed methods systematic review. *JBI Evidence Synthesis*, 20(6), 1406-1473.
- Bolourian, Z., & Ganjloo, J. (2007). Evaluating sexual dysfunction and some related factors in women attending Sabzevar Health Care Centers. *Journal of Reproduction & Infertility*, 8(2).
- Butler, E., Collier, S., Boland, M., Hanhauser, Y., Connolly, E., & Hevey, D. (2020). Self-concept and health anxiety relate to psychological outcomes for BRCA1/2 carriers. *Psycho-Oncology*, 29(10), 1638-1645.
- CE, R. (2018). Neurobiology of gender identity and sexual orientation. *J Neuroendocrinol*, 30(7).
- Cyranowski, J. M., & Espindle, D. (1999). Men's sexual self-schema. *Journal of Personality and Social Psychology*, 76(4), 645-661.
- Deutsch, A. R., Hoffman, L., & Wilcox, B. L. (2014). Sexual self-concept: Testing a hypothetical model for men and women. *The Journal of Sex Research*, 51(8), 932-945.
- Evans-Paulson, R., Widman, L., Brasileiro, J., Maheux, A. J., & Choukas-Bradley, S. (2021). Examining the link between sexual self-concept and sexual communication among adolescents. *Communication Quarterly*, 69(5), 525-543.
- F, V., L, D. B., & F, A. (2021). Physical, Mental and Sexual Health among Transgender Women: A Comparative Study Among Operated Transgender and Cisgender Women in a National Tertiary Referral Network. *J Sex Med.*, 18(5), 982-989.
- Fusar-Poli, P., de Pablo, G. S., De Micheli, A., Nieman, D. H., Correll, C. U., Kessing, L. V., . . . Arango, C. (2020). What is good mental health? A scoping review. *European Neuropsychopharmacology*, 31, 33-46.
- Garbarski, D. (2021). The survey measurement of sexual orientation: configurations of sexual identity and attraction and associations with mental health. *LGBT health*, 8(4), 307-315.
- Grieger, J. A. (2020). Preconception diet, fertility, and later health in pregnancy. *Current Opinion in Obstetrics and Gynecology*, 32(3), 227-232.
- Guyon R, Fernet M, Canivet C, Tardif M, & N., G. (2020). Sexual Self-concept among men and women child sexual abuse survivors: Emergence of Differentiated profiles. *Child Abuse Negl.* doi:10.1016/J.CHIABU.2020.104481
- Hamidi, F., Elyasi, F., Mousavinasab, S.-N., Ghasemi, A., Keshavarz, Z., & Shahhosseini, Z. (2022). Effect of a social network-based supportive program (WhatsApp) on the sexual self-concept of women with breast cancer: A single-blind-randomized controlled trial. *Palliative & Supportive Care*, 1-11.
- Hensel, D. J., Fortenberry, J. D., O'Sullivan, L. F., & Orr, D. P. (2011). The developmental association of sexual self-concept with sexual behavior among adolescent women. *Journal of adolescence*, 34(4), 675-684.

- Herbenick, D., Patterson, C., Beckmeyer, J., Gonzalez, Y. R. R., Luetke, M., Guerra-Reyes, L., . . . Rosenberg, M. (2021). Diverse sexual behaviors in undergraduate students: Findings from a campus probability survey. *The Journal of Sexual Medicine, 18*(6), 1024-1041.
- Holt, L. L., Chung, Y. B., Janssen, E., & Peterson, Z. D. (2021). Female sexual satisfaction and sexual identity. *The Journal of Sex Research, 58*(2), 195-205.
- Horvath, S., & Schreiber, C. A. (2017). Unintended pregnancy, induced abortion, and mental health. *Current psychiatry reports, 19*(11), 1-6.
- Jannini, E. A., & Nappi, R. E. (2018). Couplepause: a new paradigm in treating sexual dysfunction during menopause and andropause. *Sexual medicine reviews, 6*(3), 384-395.
- Jennings, K. J., & de Lecea, L. (2020). Neural and hormonal control of sexual behavior. *Endocrinology, 161*(10), bqaa150.
- Kidd JD, Everett BG, Corbeil T, Shea E, & TL, H. (2022). Gender Self-concept and hazardous drinking among sexual minority women: Results from the Chicago health and life experiences of women (CHLEW) study. *Addict Behav.* doi:10.1016/J.ADDBEH.2022.107366
- Lawn W, Aldrige A, Xia R, & AR., W. (2019). Substance-Linked Sex in Heterosexual, Homosexual, and Bisexual Men and Women: An Online, Cross Sectional "Global Drug Survey" Report. *J Sex Med., 16*(5), 721-732. doi:10.1016/J.JSXM.2019.02.018
- Leonardi, M., Frecker, H., Scheim, A. I., & Kives, S. (2019). Reproductive health considerations in sexual and/or gender minority adolescents. *Journal of pediatric and adolescent gynecology, 32*(1), 15-20.
- Lotfollahi, H., Riazi, H., Omani-Samani, R., Maroufizadeh, S., & Montazeri, A. (2021). Sexual self-concept in fertile and infertile women: a comparative study. *International Journal of Fertility & Sterility, 15*(1), 60.
- Malanchini, M., Engelhardt, L. E., Grotzinger, A. D., Harden, K. P., & Tucker-Drob, E. M. (2019). "Same but different": Associations between multiple aspects of self-regulation, cognition, and academic abilities. *Journal of Personality and Social Psychology, 117*(6), 1164.
- Martin-Storey A, Recchia HE, & JB., S. (2021). Self Continuity Moderates the Association Between Sexual-Minority Status Based Discrimination and Depressive Symptoms. *J Homosex, 68*(12), 2075-2096. doi:10.1080/00918369.2020.1733350
- Minkin, M. J. (2019). Menopause: hormones, lifestyle, and optimizing aging. *Obstetrics and Gynecology Clinics, 46*(3), 501-514.
- MS, F. M., & MS, S. Z. (2013). The Relationship between Depression and Sexual Function Index among Married Women TT. *Avicenna-J-Nurs-Midwifery Care, 21*(1), 41-51.
- Nezamnia M, Iravani M, Bargard MS, & M., L. (2020). Effectiveness of cognitive-behavioral therapy on sexual function and sexual self-efficacy in pregnant women: An RCT. *Int J Reprod Biomed., 18*(8), 625. doi:10.18502/IJRM.V13I8.7504
- Nik, M. M., Modarres, M., & Ziaei, T. (2018). The relation between sexual self-concepts and attachment styles in married women: A cross-sectional study. *Nursing Practice Today, 5*(1), 235-242.
- Parry, A. (2012). *Sexual self-concept, stigma & shame following a chlamydia diagnosis*. University of Hull,
- Payne, J. L., & Maguire, J. (2019). Pathophysiological mechanisms implicated in postpartum depression. *Frontiers in neuroendocrinology, 52*, 165-180.

- Peitl MV, Peitl V, & E., P. (2009). Influence of religion on sexual self-perception and sexual satisfaction in patients suffering from schizophrenia and depression. *Int J Psychiatry Med.*, 39(2), 155-167. doi:10.2190/PM.39.2.D
- Potki, R., Ziaei, T., Faramarzi, M., Moosazadeh, M., & Shahhosseini, Z. (2017). Bio-psycho-social factors affecting sexual self-concept: A systematic review. *Electronic physician*, 9(9), 5172.
- Rellini, A. H., & Meston, C. M. (2011). Sexual self-schemas, sexual dysfunction, and the sexual responses of women with a history of childhood sexual abuse. *Archives of sexual behavior*, 40(2), 351-362.
- Riazi, H., Lotfollahi, H., Omani-Samani, R., Maroufizadeh, S., & Montazeri, A. (2020). Evaluation of sexual function among infertile women and their sexual self-concept. *Journal of Reproduction & Infertility*, 21(4), 291.
- Salehi, M., Tavakol, H. K., Shabani, M., & Ziaei, T. (2015). The relationship between self-esteem and sexual self-concept in people with physical-motor disabilities. *Iranian Red Crescent Medical Journal*, 17(1).
- Shakespeare, W. (2030). *Untitled*: Simon and Schuster.
- Swaab, D. F., Wolff, S. E., & Bao, A.-M. (2021). Sexual differentiation of the human hypothalamus: Relationship to gender identity and sexual orientation. *Handbook of Clinical Neurology*, 181, 427-443.
- Talbott, J. A. (2020). Observations on homosexuality among university students: Retraction. In: LWW.
- Tao, P., Coates, R., & Maycock, B. (2011). The impact of infertility on sexuality: A literature review. *The Australasian medical journal*, 4(11), 620.
- van Drunen, L., Dobbelaar, S., van der Crujisen, R., van der Meulen, M., Achterberg, M., Wierenga, L. M., & Crone, E. A. (2021). The nature of the self: Neural analyses and heritability estimates of self-evaluations in middle childhood. *Human Brain Mapping*, 42(17), 5609-5625.
- Vandenbosch, L., & Eggermont, S. (2016). The interrelated roles of mass media and social media in adolescents' development of an objectified self-concept: A longitudinal study. *Communication Research*, 43(8), 1116-1140.
- Wu, T., & Zheng, Y. (2021). Effect of sexual esteem and sexual communication on the relationship between body image and sexual function in chinese heterosexual women. *The Journal of Sexual Medicine*, 18(3), 474-486.
- Yazdani, M., Mahmoodi, Z., Azin, S. A., & Qorbani, M. (2019). The effect of counseling based on sexual self-concept via social networks on smartphone in infertile women: a randomized controlled trial. *International Journal of Community Based Nursing and Midwifery*, 7(3), 231.
- Zanin, E., Salizzato, S., Aiello, E. N., Leochico, C. F. D., Rey-Matias, R. R., Pauletto, P., . . . Bazo, H. A. C. (2022). The contribution of bio-psycho-social dimensions on sexual satisfaction in people with spinal cord injury and their partners: an explorative study. *Spinal Cord Series and Cases*, 8(1), 1-6.
- Ziaei, T., Rad, H. F., Roshandel, G., & Aval, M. (2018). Effect of counseling based on sexual self-concept on the sexual health of women in reproductive age. *Global Journal of Reproductive Medicine*, 3(5), 85-90.