

Sexual Challenges Among Nigerians: An Online Survey

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To cite this article:

Sa'adatu Talatu Sule, Boubacar Dieng, Usman Ibrahim Gebi. Sexual Challenges Among Nigerians: An Online Survey. *Central African Journal of Public Health*. Vol. 8, No. 2, 2022, pp. 80-86. doi: 10.11648/j.cajph.20220802.19

Received: March 30, 2022; **Accepted:** April 15, 2022; **Published:** April 26, 2022

Abstract: Sexual disorders can affect the general well-being of individuals including their relationships with their spouses/partners. This study was carried out to assess the frequency of sexual challenges among Nigerians with a view to increasing awareness and improving sexual health in the country. The study was an anonymous online survey carried out using Google Forms. Statistical analyses including rates and comparative analyses were carried out using MINITAB statistical software version 19. Of all respondents, 24% experienced sexual challenges of which 25.8% are female while 21.1% are male. Sexual challenges were significantly more common ($p = 0.005$) among women who had previously terminated a pregnancy for non-medical reasons (56.3%) compared to those who had not (19.6%). Lack of interest was the commonest sexual challenge reported by respondents occurring in 62.5% of all those who had sexual challenges and 81.3% of female respondents who had sexual challenges. Premature ejaculation (75%) was the most common sexual challenge reported by the male respondents. Only 12.5% sought care from a health facility and the most common reason for not seeking care from a health facility was lack of awareness about where to get care (18.1%). Sexual challenges are common among Nigerians and negatively impact their well-being, particularly their relationships with their spouses/partners. There is a need to increase awareness about sexual challenges and improve the quality of available services.

Keywords: Sexual Challenges, Lack of Interest, Premature Ejaculation, Nigeria, Online Survey

1. Introduction

Sexual health is an important aspect of the health of individuals that affects their general well-being. Sexual disorders can take various forms, all of which require proper investigation and management in order to improve the well-being of affected individuals. Based on ICD-11, disorders of sexual function are classified into four main types namely, disorders of desire, arousal, orgasm and sexual pain [1]. These disorders are not uncommon and may affect both men and women, and their partners or spouses. Previous reports have shown that the prevalence of sexual disorders varies widely ranging from as low as 21.2% among men and 14% among women [2] to as high as 56.1% in men (erectile dysfunction) [3] and 80% in women [4].

Sexual disorders are more common among people with sedentary lifestyles, those with medical conditions such as

diabetes, hypertension or previous pelvic surgery (including prostate), those taking medications [5, 6] and also among those who have experienced certain harmful traditional practices such as female genital cutting [7]. Other issues that may result in sexual disorders include gender based violence including previous sexual abuse, uncaring partners that do not pay attention to their partner's sexual needs, excessive domestic chores, competition in polygamous settings and other social issues [8]. Physiological changes that occur with increasing age in both men and women (including menopause) may also be associated with sexual disorders [9].

Sexual disorders can affect the lives of individuals physically, psychologically or socially. Physical effects are mainly related to pain, infections as a result of bruising of the genital tract due to vaginal dryness, and subfertility [10]. Psychological issues that may arise due to sexual disorders include dissatisfaction with their sexual health, low

self-esteem, anxiety, and depression [5, 6, 10]. The main social issues experienced by individuals who have sexual disorder include marital/relationship discord that may result in divorce or a breakdown of such relationships, violence or extramarital affairs [6, 11]. Although these disorders affect the well-being of individuals, many do not seek treatment at health facilities for various reasons including lack of awareness of services, belief that sexual disorders are spiritual or one's destiny, stigma, economic or sociocultural reasons [5, 8, 9, 11, 12]. There is also a widespread belief that individuals especially women should not discuss sexual issues with anyone including one's spouse [2, 8-10, 13]. As a result of these beliefs, many people who have sexual disorders either do not seek treatment or seek treatment from sources outside health facilities such as religious institutions [11] especially as they may think that medical practitioners cannot offer any assistance for sexual disorders [2, 10].

This study was carried out to assess and document the frequency of sexual disorders among Nigerians and their attitudes relating to sexual disorders with a view to raising awareness on these issues and improving the sexual health in the country.

2. Methodology

The study was an anonymous online survey using Google Forms that was circulated to contacts via WhatsApp between April and September 2020. The sample was one of convenience based on the authors' contacts who were also encouraged to share the survey link to their own contacts who are Nigerians and are based in Nigeria. A structured questionnaire was used to obtain information from the respondents. Data obtained from respondents included information on their general biodata (age, sex, religion, education, marital status, place of residence, number of children). In addition, information was obtained about their experiences of sexual health challenges, the effects of these challenges on their lives, and how they have addressed the challenges, with some options provided in addition to space for other responses that were not listed in the options. The questionnaire also sought information about their other reproductive health experiences such as knowledge and use of contraceptive methods, previous induced abortions for non-medical reasons. The questionnaire was pre-tested among contacts who were not health professionals and based on their inputs, modifications were made in order to ensure that the desired responses were obtained. The statistical analyses included rates and comparative analyses, and these were carried out using MINITAB statistical software version 19. The rates used in this paper are percentages. Statistical tests of association included chi-squared test, student's t-test, and 95% confidence intervals. The level of significance used for all the tests of association was a p-value of less than 0.05.

The limitations of the study are the convenience sampling and the use of an online survey both of which resulted in respondents being only those who are educated and have access to the internet. However, it is hoped that this study will serve as a catalyst for more robust population-based studies in

this important and often neglected aspect of health. As challenges are self-reported, they are referred to as sexual challenges in this paper.

3. Results and Discussion

3.1. Results

There were 106 responses and of these, six respondents were not resident in Nigeria (1 from Canada, 1 from United Kingdom, 1 from Kenya, 1 from Australia, and 2 from United States of America). The non-resident responses were excluded and the analysis carried out on the data obtained from the 100 Nigeria-resident respondents.

The respondents were made up of 62 women (62%) and 38 men (38%) and majority had a Master's degree (51%) while the rest had a first degree (32%), PhD (7%) and Professional Fellowship (5%). Majority were Christians (62%) while the rest were Muslims (38%) and most of them were married (76%) while the rest were single (17%), divorced (4%), widowed (2%) or separated (1%). The age of the respondents ranged from 22 to 60 years with a mean of 41.2 years and a median of 41 years (standard deviation = 7.41).

The number of children that respondents had ranged from 0 to 10 with a median of 2 and a mean of 2.22 (standard deviation = 1.83). Those who did not have any children were 18% while those who had between 1 and 4 children comprised 75% and the rest (7%) had 5 or more children.

Majority of the respondents (76%) did not have any sexual challenges while the rest (24%) reported that they had sexual challenges. Sexual challenges were present among 25.8% of the female respondents and 21.1% of the male respondents. The chi-squared test did not show significant association between the sex of the respondent and the presence of sexual challenges ($p = 0.59$). There was also no significant association between the presence of sexual challenges and marital status ($p = 0.13$), religion ($p = 0.67$), or number of children ($p = 0.81$). The mean age of respondents who had sexual challenges was 42.7 years (standard deviation = 6.48) and 40.7 years (standard deviation = 7.66) among those who did not have sexual challenges. The difference in the mean ages (2.02 years) between these 2 groups of respondents was not statistically significant ($p = 0.21$) based on the t-test. There was no significant association between age and presence of sexual challenges among women ($p = 0.58$) or men ($p = 0.19$).

Sexual challenges were reported by a significantly higher proportion ($p = 0.004$) of those who had previously aborted a pregnancy for non-medical reasons (41.7%) compared to those who had not had a previous non-medical abortion (14.5%). This difference was mainly among the female respondents in whom sexual challenges were present in 56.3% of those who had aborted a previous pregnancy for non-medical reasons compared to 19.6% of those who had not had an abortion for such reasons ($p = 0.005$). This statistically significant difference was not present in the male respondents.

The details of the types of sexual challenges reported are in table 1 below.

Table 1. Types of sexual challenges among respondents.

| Sexual challenge | Male | Female | Total |
|---|-----------|------------|------------|
| Lack of interest | 2 (25.0%) | 13 (81.3%) | 15 (62.5%) |
| Vaginal dryness | 0 | 5 (31.3%) | 6 (25.0%) |
| Premature ejaculation | 6 (75.0%) | 0 | 9 (37.5%) |
| Painful intercourse | 1 (12.5%) | 4 (25.0%) | 5 (20.8%) |
| Lack of orgasm | 0 | 4 (25.0%) | 4 (16.7%) |
| Delayed orgasm | 1 (12.5%) | 1 (6.3%) | 2 (8.3%) |
| Excessive desire | 2 (25.0%) | 1 (6.3%) | 3 (12.5%) |
| Partner not interested | 1 (12.5%) | 0 | 1 (4.2%) |
| No more intimacy with spouse | 0 | 1 (6.3%) | 1 (4.2%) |
| Erectile dysfunction | 1 (12.5%) | 0 | 1 (4.2%) |
| More sexual desire with others | 1 (12.5%) | 0 | 1 (4.2%) |
| Total number of respondents with sexual challenges* | 8 | 16 | 24 |

*The total number of respondents with sexual challenges is not equal to the sum of those with each type of challenge as over half of the respondents (62.5%) had more than one type of sexual challenge.

Lack of interest was the commonest sexual challenge reported occurring in 62.5% of all those who had sexual challenges and 81.3% of female respondents who had sexual challenges. Premature ejaculation (75%) was the most common challenge reported by the male respondents who had sexual challenges. Lack of interest was not significantly associated with any of the other sexual challenges based on the chi-squared test. However, lack of interest was completely absent among those who reported having excessive desire (0%) compared to those who did not report excessive desire 71.4% and this difference was statistically significant ($p = 0.02$) based on the chi-squared test. Among those who had lack of interest, there were more women (86.7%) compared to men (13.3%) and the difference was statistically significant ($p = 0.007$). Although those who reported lack of interest were slightly older (43.8 years) than those who did not report lack of interest (40.9 years), the difference was not statistically significant ($p = 0.34$). There was no significant difference ($p = 0.93$) between the ages of those who reported premature ejaculation (42.6 years) and those who did not (42.8 years). There was also no significant association between age and vaginal dryness ($p = 0.77$), pain ($p = 0.16$), lack of orgasm ($p = 0.50$), delayed orgasm (0.94), or excessive desire (0.43). Erectile dysfunction and other types of sexual challenges did not have

enough data for a test of comparison. Among respondents who reported that they had lack of interest, several had multiple sexual challenges including vaginal dryness (20%), premature ejaculation (26.7%), painful intercourse (20%), lack of orgasm (26.7%), delayed orgasm (13.3%), and more desire with others rather than partner/spouse (6.7%).

The presence of sexual challenges was significantly associated with non-use of contraceptives ($p = 0.02$) with 34.8% of those not using contraceptives reporting that they had sexual challenges compared to 14.8% of those using contraceptives. Among respondents who had sexual challenges, non-use of the male condom was significantly associated with lack of interest ($p = 0.03$) but the male condom was not associated with any of the other sexual challenges based on the chi-squared tests. Among those who had sexual challenges, lack of interest was present among 28.6% of those using male condoms compared to 76.5% of those not using male condoms.

Among respondents who had sexual challenges, more than a third (37.5%) did not seek any care and only 12.5% sought care from a health facility while the rest used traditional medicine, spiritual care, diet and lubricants as detailed in table 2 below.

Table 2. Type of care sought for sexual challenges.

| Type of care sought | Male | Female | Total |
|--|------|--------|-----------|
| No care | 3 | 6 | 9 (37.5%) |
| Traditional medicine, herbs, local aphrodisiacs | 2 | 3 | 5 (20.8%) |
| Health facility care | 1 | 2 | 3 (12.5%) |
| Diet – fruit juices, foods | 0 | 2 | 2 (8.3%) |
| Lubricants | 0 | 2 | 2 (8.3%) |
| Spiritual care | 1 | 2 | 3 (12.5%) |
| Total number of respondents with sexual challenges | 8 | 16 | 24 |

Among those who used traditional medicine, all of them used some oral medication (100%) in addition to vaginal preparations (60%), preparations used to bath or steam (40%), and creams or lotions applied to the skin (20%). There was no significant association between the sex of the respondent and the type of care sought and there was no significant association between the type of sexual challenges and not seeking care based on the chi-squared tests of association (all p values were >0.05). Among

those who received care for the sexual challenges, 37.5% felt that they care was effective and there was no need for additional care, 25% felt that it was partially effective and that they would need additional care while 25% felt that the care was ineffective and that they would need to seek alternative care. The rest (12.5%) did not respond to this question. There was no significant association between the type of care sought and the perception of the effectiveness of the care received based on the chi-squared

tests (all p values were >0.05). The reasons given for not seeking care for sexual challenges from a health facility were not

significantly associated with the sex of the respondent. Details are in table 3 below.

Table 3. Reasons for not seeking care from a health facility.

| Reasons for not seeking care from health facility | Male | Female | Total |
|--|------|--------|-----------|
| Don't know where to get care | 2 | 0 | 2 (18.1%) |
| Uncomfortable discussing details | 0 | 1 | 1 (9.1%) |
| Too busy | 0 | 1 | 1 (9.1%) |
| It is not important to me | 0 | 1 | 1 (9.1%) |
| I don't think it is a medical issue (lack of interest) | 0 | 1 | 1 (9.1%) |
| I don't need it | 1 | 0 | 1 (9.1%) |
| Seems to be menopausal effects | 0 | 1 | 1 (9.1%) |
| Concerned about side effects of any treatment | 0 | 1 | 1 (9.1%) |
| Prefer natural remedies | 1 | 0 | 1 (9.1%) |
| Poor patient - provider relationships | 1 | 0 | 1 (9.1%) |
| Total* | 5 | 6 | 11 |

*Some respondents did not give any reason for not seeking care from a health facility.

Majority of the respondents who had sexual challenges reported that it had some effect on the quality of their lives with almost half of respondents reporting more than one effect

as detailed in table 4 below. One-fifth (20.8%) of respondents who had sexual challenges reported that it did not have any effect on their quality of life.

Table 4. Effect of sexual challenges on the quality of life of respondents.

| Effect of sexual challenges on quality of life | Male | Female | Total |
|---|------|--------|------------|
| Strained relationship with partner | 4 | 6 | 10 (41.7%) |
| Get angry easily | 2 | 7 | 9 (37.5%) |
| Feel unhappy | 2 | 6 | 8 (33.3%) |
| Low self esteem | 2 | 1 | 3 (12.5%) |
| Working excessively | 1 | 1 | 2 (8.3%) |
| Have multiple sex partners | 1 | 0 | 1 (4.2%) |
| Husband has extra-marital relationship for 10 years | 0 | 1 | 1 (4.2%) |
| No effect | 1 | 4 | 5 (20.8%) |
| Total number of respondents who have sexual challenges* | 8 | 16 | 24 |

*The total number of respondents with sexual challenges is not equal to the sum of those who reported some effect of the problem as 45.8% of the respondents had more than one type of effect.

There was no significant association between sex of the respondent and any of the effects of the sexual challenges on the quality of life based on the chi-squared tests (all p values >0.05). There was also no significant association between not seeking care and the effect of the sexual challenges on the quality of life based on the chi-squared tests (all p values >0.05). There was no significant association between the effects of sexual challenges and vaginal dryness, premature ejaculation, or painful intercourse (all p values >0.05). Although lack of interest was not significantly associated with other effects of sexual challenges, it was significantly associated with low self-esteem ($p = 0.02$) with none of the respondents who had lack of interest reporting low self-esteem compared to 33.3% of those who did not have lack of interest but had other sexual challenges.

3.2. Discussion

This study revealed that about a quarter (24%) of the respondents reported having some sexual challenges with more women (25.8%) reporting such challenges compared to men (21.1%). This is similar to previous reports that showed that sexual disorders are more common among women than men [1, 3, 13], although a previous study among older adults in Nigeria revealed that more men reported sexual challenges than women

probably because sexual challenges are perceived as a normal ageing process [14]. The overall prevalence of sexual challenges among men and women in this study is similar to what has been reported previously [15] but lower than findings from previous studies in Nigeria [4-6, 8] and elsewhere [1, 3, 10, 13, 16, 17]. There are also reports of lower prevalence of sexual challenges than has been found in this study [18]. Although sexual challenges are associated with age especially among those who have medical conditions [5, 10, 15] and particularly among men [19], this study did not find any significant difference between the mean ages of those who had sexual challenges (42.7 years) and those who did not have such challenges (40.7 years). The lack of association with age in this study may be due to the sampling method which involved seeking responses from known contacts and their own contacts. In addition, the use of an online survey may also have excluded the older age groups who may not use the internet as much as younger people. There have also been other reports that did not find any association between sexual disorders and age and these reports have also suggested that this was due to limited age range with exclusion of older people in their samples [8, 9]. In addition some reports have found decreasing sexual disorders with increasing age among women probably because of decreasing frequency of sexual intercourse [4, 8, 10, 16]. There

have been reports of sexual challenges being more common among divorced or separated individuals [5, 6] and those who have more children [4, 9, 13], however, this study did not find any significant association between sexual challenges and marital status or number of children. This study also found that sexual challenges were more common among women who had previously aborted a pregnancy for non-medical reasons, in keeping with previous reports [20, 21] that suggested that this may be as a result of feelings of guilt, anxiety or depression because of the abortion, relationship problems due to the abortion or leading to abortion. However, some other researchers did not find any association between previous abortion and sexual challenges [9].

The most common sexual challenge reported was lack of interest (sexual desire disorder) which was present in 62.5% of all those who had sexual challenges and it was also the most common sexual challenge among women (81.3%). This is in keeping with previous studies that found disorders of desire to be the commonest sexual challenge among women [1, 4, 12, 13]. Among men, premature ejaculation was the most common challenge reported occurring in two-thirds of men who had sexual challenges in keeping with a previous report [19]. Erectile dysfunction was not common in this study (12.5%) probably because it is more common in older men [1, 3, 5, 6, 18] who were not included in this study due to the limitations in the sampling method. Premature ejaculation has been reported to be more common in younger men [1, 18], however, this study did not find any association between age and premature ejaculation similar to some other reports [18, 22]. Similarly, this study did not find any significant association between age and any other type of sexual challenge in contrast to previous studies that reported an association between sexual challenges and age [3, 4, 6, 9, 16, 23].

Sexual challenges were reported by a significantly higher proportion of respondents who were not using contraceptives compared to those who were using contraceptives and further analysis revealed that this was a result of higher rates of lack of interest among those who were not using the male condom. This result is not unexpected given that those who lack interest are less likely to have sexual intercourse and thus, they are less likely to use male condoms. In addition, the use of contraceptives is likely to reduce anxiety about unplanned pregnancy and thus increase sexual satisfaction. There have been previous reports that did not find any association between contraceptive use and sexual challenges [4, 13, 24] while other researchers have reported a significant association between sexual challenges and use of contraceptives possibly due to the effect of hormones [16, 25, 26].

Half of the respondents who had sexual challenges did not seek care while only a small proportion sought care from a health facility (12.5%), and the rest treated the condition with traditional medicine, spiritual care, diet and lubricants. The most common reason for not seeking care was lack of awareness about where to get treatment while other reasons included normalization of symptoms and lack of awareness about the possible causes and treatment of these issues (not

important, not a medical issue, caused by menopause, don't need treatment), not being comfortable discussing such issues, concern about poor provider attitudes at health facilities, concern about side effects of any treatment and preference for natural remedies. This finding is similar to what has been reported by previous researchers showing a reluctance to seek care from health facilities for sexual challenges which may be as a result of lack of awareness about availability of services to address these issues [10, 24], normalization of symptoms [10, 13, 14], fear of stigmatization [8], viewing sexual challenges as issues that should not be discussed openly [9, 11], or belief that sexual challenges cannot be treated medically [5, 10, 25]. The belief that sexual challenges are not amenable to medical treatment may also contribute to the preference for traditional medicine or spiritual care which was reported by a third of the respondents. Regardless of the type of care (health facility cares inclusive) received for sexual challenges, half of the respondents felt that such care was either partially effective or ineffective and that they would need additional care, suggesting a need for improvement of available services.

The sexual challenges affected the quality of life of three-quarters of those who had these problems and the most common effect in both men and women was a strained relationship with their partner. Such strained relationships due to sexual challenges may lead to emotional stress, extramarital relationships, separation, divorce, or intimate partner violence as has been reported by previous researchers [6, 8, 11, 27]. Many of these respondents whose lives were affected, reported that the sexual challenges affected their lives in more than one way. It is interesting to note that none of the respondents who had lack of interest reported having low self-esteem and this may be due to the normalization of such symptoms as described above.

4. Conclusion

Sexual challenges are common in this environment, however, there is low awareness about the possible care that is available. There is a need to improve awareness about the causes of such problems and the available services in order to increase utilization of these services. The significant association between sexual challenges and, abortion and non-use of contraceptives should be explored further through population-based research and should be considered when counselling clients. Other areas that need further research include the reasons for non-use of health facilities for sexual challenges and how to increase demand for these services; the capacity of health facilities to provide sexual health services and; the relationship between sexual challenges and relationship discord including violence. Providers of reproductive health and other health services should actively seek information about sexual challenges in clients and address these issues in a sensitive manner and refer for further care as necessary. The capacity of health services to address sexual challenges should be improved in order to ensure availability of high-quality services, while also increasing demand and utilization of services.

Acknowledgements

We would like to thank all the respondents that participated in the online survey.

References

- [1] Briken P, Matthiesen S, Pietras L, Wiessner C, Klein V, & Reed GM, et al. (2020). Estimating the Prevalence of Sexual Dysfunction Using the New ICD-11 Guidelines. *Deutsches Ärzteblatt International*, 117, 653 – 658.
- [2] Sathyanarayana Rao TS, Darshan MS, & Tandon A. (2015). An epidemiological study of sexual disorders in south Indian rural population. *Indian Journal of Psychiatry*, 57 (2), 150–157.
- [3] Ramezani MA, Ahmadi K, Ghaemmaghami A, Marzabadi EA, & Pardakhti F. (2015). Epidemiology of Sexual Dysfunction in Iran: A Systematic Review and Meta-analysis. *International Journal of Preventive Medicine*, 6, 43. doi: 10.4103/2008-7802.157472.
- [4] Adebuseye LA, Ogunbode O, Owonokoko KM, Ogunbode AM, & Aimakhu C. (2020). Factors associated with sexual dysfunction among female patients in a Nigerian ambulatory primary care setting. *Annals of Ibadan Postgraduate Medicine*, 18 (1), 9-17.
- [5] Idung AU, Abasiubong F, Ukott IA, Udoh SB, & Unadike BC. (2012). Prevalence and risk factors of erectile dysfunction in Niger delta region, Nigeria. *African Health Sciences*, 12 (2), 160-165.
- [6] Adebuseye LA, Olapade-Olaopa OE, Ladipo MM & Owoaje ET. (2012). Prevalence and Correlates of Erectile Dysfunction among Primary Care Clinic Attendees in Nigeria. *Global Journal of Health Science*, 4 (4), 107-117.
- [7] Buggio L, Facchin F, Chiappa L, Barbara G, Brambilla M, & Vercellini P. (2019). Psychosocial Consequences of Female Genital Mutilation and the Impact of Reconstructive Surgery: A Narrative Review. *Health Equity*, 3.1, 36-46. doi: 10.1089/heq.2018.0036.
- [8] Fajewonyomi BA, Orji EO, & Adeyemo AO. (2007). Sexual Dysfunction among Female Patients of Reproductive Age in a Hospital Setting in Nigeria. *Journal of Health, Population and Nutrition*, 25 (1), 101-106.
- [9] Maasoumi R, Elsous A, Hussein H, Taghizadeh Z, & Baloushahe S. (2019). Female sexual dysfunction among married women in the Gaza Strip: an internet-based survey. *Annals of Saudi Medicine*, 39 (5), 319-327. doi: 10.5144/0256-4947.2019.319.
- [10] Ibine B, Ametepe LS, Okere M, & Anto-Ocrah M. (2020). "I did not know it was a medical condition": Predictors, severity and help seeking behaviors of women with female sexual dysfunction in the Volta region of Ghana. *PLoS ONE*, 15 (1), e0226404. <https://doi.org/10.1371/journal.pone.0226404>
- [11] Amoo EO, Omideyi AK, Fadayomi TO, Ajayi MP, Oni GA & Idowu AE. (2017). Male reproductive health challenges: appraisal of wives coping strategies. *Reproductive Health*, 14, 90. doi: 10.1186/s12978-017-0341-2.
- [12] Aisuodionoe-Shadrach OI. (2012). Perceptions of female sexual health and sexual dysfunction in a cohort of urban professional women in Abuja, Nigeria. *Nigerian Journal of Clinical Practice*, 15 (1), 80-83.
- [13] Mohammadian S & Dolatshahi B. (2019). Sexual problems in Tehran: Prevalence and associated factors. *Journal of Education and Health Promotion*, 8, 1-11. doi: 10.4103/jehp.jehp_231_19.
- [14] Olatayo AA, Kubwa OO, & Adekunle AE. (2015). Sexuality in Nigerian older adults. *Pan African Medical Journal*, 22, 315. doi: 10.11604/pamj.2015.22.315.7617.
- [15] Goldstein I. (2000). Female sexual arousal disorder: new insights. *International Journal of Impotence Research*, 12 (4), S152-S157.
- [16] Kılıç M. Prevalence and risk factors of sexual dysfunction in healthy women in Turkey. (2019). *African Health Sciences*, 19 (3), 2623-2633. <https://dx.doi.org/10.4314/ahs.v19i3.38>
- [17] Oksuz E & Malhan S. (2005). The prevalence of male sexual dysfunction and potential risk factors in Turkish men: a Web-based survey. *International Journal of Impotence Research*, 17, 539–545. doi: 10.1038/sj.ijir.3901357.
- [18] Irfan M, Hussain NHN, Noor NM, Mohamed M, Sidi H, & Ismail SB. (2020). Epidemiology of Male Sexual Dysfunction in Asian and European Regions: A Systematic Review. *American Journal of Men's Health*, 1-40. doi: 10.1177/1557988320937200.
- [19] Laumann EO, Nicolosi A, Glasser DB, Paik A, Gingell C, & Moreira E, et al for the GSSAB Investigators' Group. (2005). Sexual problems among women and men aged 40–80 y: prevalence and correlates identified in the Global Study of Sexual Attitudes and Behaviors. *International Journal of Impotence Research*, 17, 39–57. doi: 10.1038/sj.ijir.3901250.
- [20] Bianchi-Demicheli F, Kulier R, Perrin E & Campana A. (2000). Induced abortion and psychosexuality. *Journal of Psychosomatic Obstetrics and Gynecology*, 21 (4), 213-217. doi: 10.3109/01674820009085590.
- [21] Bianchi-Demicheli F, Perrin E, Lüdicke F, Bianchi PG, Chatton D, & Campana A. (2002). Termination of pregnancy and women's sexuality. *Gynecologic and Obstetric Investigation*, 53 (1), 48-53. doi: 10.1159/000049411.
- [22] Brock GB, Bénard F, Casey R, Elliott SL, Gajewski JB, & Lee JC. (2009). Canadian male sexual health council survey to assess prevalence and treatment of premature ejaculation in Canada. *Journal of Sexual Medicine*, 6 (8), 2115-23. doi: 10.1111/j.1743-6109.2009.01362.x.
- [23] Graham CA, Mercer CH, Tanton C, Jones KG, Johnson AM, & Wellings K, et al. (2017). What factors are associated with reporting lacking interest in sex and how do these vary by gender? Findings from the third British national survey of sexual attitudes and lifestyles. *BMJ Open*, 7, e016942. doi: 10.1136/bmjopen-2017-016942.
- [24] Safarinejad MR. (2006). Female sexual dysfunction in a population-based study in Iran: prevalence and associated risk factors. *International Journal of Impotence Research*, 18, 382–395. doi: 10.1038/sj.ijir.3901440.
- [25] Aslan E, Beji NK, Gungor I, Kadioglu A, & Dikencik BK. (2008). Prevalence and Risk Factors for Low Sexual Function in Women: A Study of 1,009 Women in an Outpatient Clinic of a University Hospital in Istanbul. *Journal of Sexual Medicine*, 5, 2044–2052. doi: 10.1111/j.1743-6109.2008.00873.x.

- [26] Wallwiener CW, Wallwiener LM, Seeger H, Mück AO, Bitzer J, & Wallwiener M. (2010). Prevalence of sexual dysfunction and impact of contraception in female German medical students. *Journal of Sexual Medicine*, 7 (6), 2139-2148. doi: 10.1111/j.1743-6109.2010.01742.x.
- [27] Vazir EB, Mohammad-Alizadeh-Charandabi S, Kamalifard M, Ghelichkhani F, Mohammadi A & Mirghafourvand M. (2020). The correlation between sexual dysfunction and intimate partner violence in young women during pregnancy. *BMC International Health and Human Rights*, 20, 24. doi: 10.1186/s12914-020-00245-9.