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Research Article

The Effects of Arthralgia and Arthroplasty on Sex Life of Saudi Patients

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Abstract

Arthralgia can undermine the ability and motivation to engage in physically intensive activities like sex because of its symptoms, such as pain and fatigue. Arthroplasty has been associated with the ability to manage the negative effects of arthralgia on sex life, though the effects are not significant in all cases of arthralgia. The study seeks to investigate the effects of arthralgia and arthroplasty on the sex life of Saudi patients. Existing literature identifies a dearth of knowledge in the effects of the general scope of arthralgia on sex life as well as the effects of arthralgia and arthroplasty on sex life in Saudi Arabia. A survey is used to collect quantitative data about this issue. A random sample of 150 people with experience of arthralgia or arthralgia and arthroplasty was taken, yielding 78 responses. The participants completed the questionnaire on a data collection web page after completing informed consent forms. The retrospective nature of the research design offers the major limitation of the study. Nevertheless, the study contributes to knowledge and practice for the promotion of sexual health of people with arthralgia in Saudi Arabia. Results identify adverse effects of arthralgia on sex life and significance of arthroplasty in improving the sex life of people with arthralgia. The study is therefore is significant to knowledge development and practice for the promotion of sex life among people with arthralgia.

Introduction

Symptoms of arthralgia can undermine body functionality, which seriously concerns sufferers. Joint pain and fatigue, are some of the symptoms of the condition that adversely affect body functionality [1]. Pain affects the quantity and quality of sleep, which then affects a person's potential. The resultant fatigue because of insufficient sleep then undermines the efficiency with which a person can undertake a task. In addition, the pain due to arthralgia may be more significant following an engagement in an intense physical activity. As a result, involvement in activities that require physical exertion, such as sex, may involve pain during or after the activity. Such painful experiences may undermine people's ability to partake in the activity or discourage involvement in the activities to avoid pain. An experience of pain during sex, for example, may force a person stop, or undermine the person's concentration on their performance. Similarly, an experience of pain during or after sex may undermine a person's motivation to engage in it in the future. Arthralgia may also limit joint movements [1], which undermines functionality in activities that rely on the affected joints. Scott and Temme (2015) explain the effects of the symptoms of arthralgia on sexual functionality [2]. "Joint pain, stiffness, and fatigue," according to Scott and Temme (2015, p. 475) [2], are the significant symptoms of rheumatologic conditions that affect sex life.

Arthroplasty is one of the available remedies for arthralgia. It has been associated with a significant improvement of sexual functionality from the level of functionality under the arthralgic condition [2]. However, Cifu (2015) notes that sexual functionality may be improved but not fully restored after arthroplasty; and positive effects of arthroplasty on sex life are also not guaranteed and may only be realized after one or two months. Empirical results suggest a 65% probability of realizing the benefits and the need to refrain from sexual intercourse over the period establish the limitations of arthroplasty (Cifu, 2015). Quervain (2011) further explains that the effectiveness of arthroplasty is limited to tasks that are less demanding [3]. Intensive tasks, however, face deficits and may require compensatory initiatives like increased movements of the trunk and the pelvis (Quervain, 2012) [3]. Galliker (2014) affirms the limited effects of arthroplasty on functionality and suggests that only a few patients regain their functionality after knee replacement surgery [4]. Arthralgia and arthroplasty, therefore, limit people's functionality, including sexual functionality because of pain, fatigue and restricted movements of joints.

Sexual life is an important aspect of the quality of life of a person, especially in relationships. Sex, together with food, sleep and security has been identified as a basic need (Goel, 2005) [5]. As a result, the failure to meet sexual needs, just like the failure to

satisfy the needs for food, sleep, and security can compromise a person's quality of life. The role of sex is important as it contributes to the bond between couples. Some aspects of relationships exist that keep couples together other than sex, but sex plays an important role in promoting companionship (Goel, 2005) [5]. An established association between sexual activity, quality of sex life and physical health suggests a possible significance of sexual life on physical health (Brown, 2011) [6]. The effects of arthralgia and arthroplasty on sexual life, therefore, could translate to poor companionship in relationships and poor physical health in individuals.

Aims and Objectives

The study seeks to investigate the effects of arthralgia and arthroplasty on sex life in Saudi Arabia. The following are therefore the specific research objectives.

- To investigate the effects of arthralgia on sex life in Saudi Arabia
- To investigate the effects of arthroplasty on sex life in Saudi Arabia

Research Questions and Hypotheses

The study seeks to investigate the effects of arthralgia and arthroplasty on sexual life in Saudi Arabia. The following research questions will be addressed.

- Does arthralgia affect sex life of people in Saudi Arabia?
- What extent does arthroplasty restore the sex functionality that arthralgia undermines?'.

The following hypotheses will therefore be addressed:

- Mean levels of quality and quantity of sex differ significantly in the presence and absence of arthralgia
- Mean levels of quality and quantity of sex differ significantly before arthralgia, during arthralgia and after arthroplasty

Literature Review

Joint pain has been associated, empirically, with negative effects on sex life. Rheumatoid arthritis, which is one of the causes of joint pain, has been linked to many factors related to sex. Sexual disability, according to Tristano (2014), is one of the effects of joint pain [7]. This disability is a physical aspect that results from an undermined mobility that is usually necessary during sex. The pain, fatigue and stiffness that are associated with joint pain also undermine the ability or desire to have sex, as it also has psychological effects. Joint pain may lead to anxiety and depression that reduces the urge for sex; and may also alter a person's body image to undermine satisfaction during sexual intercourse [7]. A study on patients with joint pain, due to osteoarthritis, supports the effects of joint pain on sexual activity [8]. The study that involved people with a mean age of 57.7 identifies physical problems with 67% of people with joint pain, and this indicates the significant role of pain in undermining sexual activity among people with joint pain [8].

Osteoarthritis also causes stiffness in about 36% of patients, reduces sexual desire in 49% and causes inability to realize suitable sex positions in 14% [8]. Psychological effects of the joint pain due to osteoarthritis, however, are more prevalent than are the physical effects, as about 53% of the patients suffer from poor sexual self-image [8]. A study that sought to investigate effects of arthroplasty also establishes poor physical potentials of people with knee joint pain, compared to healthy people. People with knee joint pain, according to the study, experience poorer quadriceps torque, active knee flexion and knee extension than do healthy individuals. The patients also score poorly on the time u-and-go test, stair-climbing test, and single limb stance than do healthy patients. The physical disadvantage due to the pain supports the idea that joint pain disadvantages sexuality [9].

Joint reconstruction and replacement have been associated with improved sexuality. The American Academy of Orthopaedic Surgeons, studied the effects of hip and knee replacements, and noted improvements in libido and sex activity measures following the interventions. Forty-two% of people who underwent replacements experienced improved libido, while 41% experienced an increment in duration of intercourse, and 41% enjoyed increased frequency of sexual intercourse. The hip replacement and knee replacement treatments also improved the quality of health and sexual self-image [8]. Meiri, Rosenbaum, and Kalichman (2014) also report the ability of the total hip replacement to restore sexuality among patients with end-stage hip osteoarthritis [10]. The total hip replacement also improves the sexual quality of life of a person, physically and psychologically [11] and reduces the strain on sexual relations that develop from joint pain in a member of an intimate relationship [12]. Inadequacies have however also been identified in the ability of joint replacement or reconstruction to restore sexual functionality. Joint replacements and treatments have been associated with the fear of sustaining an injury on the replaced joint, which undermines sexuality in about 16% of patients who undergo the surgery [8]. The treatments have also failed to restore sexual activity in some patients [11,12].

Arthroplasty, therefore, is beneficial to the sexuality of patients with joint pains, but the positive effects are not universal. In addition, existing literature on joint pain and arthroplasty are segmented to pain due to different types of diseases, and a dearth of knowledge exists on the effects of arthralgia and arthroplasty on sexuality in the Kingdom of Saudi Arabia. The study seeks to bridge the gap by studying the effects of arthralgia and arthroplasty on sex life in Saudi Arabia.

Methodology

The post-positivist paradigm that assumes the existence of a single reality about a concept, existence of relationships among concepts and objective property of data (Creswell, 2014) [13] informs the methodology of the study. Relationships under the post-positivist paradigm can further be reduced to hypotheses that can be tested with a level of fallibility [13]. The scope of the study that involves arthralgia, arthroplasty, quality, and quantity of sex identifies with the assumptions of the post-positivist paradigm of objectivity, a single reality, and the existence of relationships among concepts. Measures, such as satisfaction with sexual intercourse and motivation for sex following satisfactions with previous encounters, though qualitative, can be measured quantitatively to meet the assumption of the objective property of data.

The quantitative research method that is consistent with the post-positivist paradigm is used for the study [13]. The quantitative research method, besides the consistency with the post-positivist paradigm, is preferred because of its advantages that include the ability to generalize research findings and the simplicity of data collection and analysis. Data, for example, can be collected through observations and surveys while quantitative data analysis software can aid data analysis.

A retrospective survey design is used. The survey design collects data in their natural existence, a scope that makes it simple and easy to implement. The survey design also has fewer legal and moral concerns, compared to the experimental and quasi-experimental designs that require randomization and/or treatment of research participants [14]. The lack of treatment of research participants in the survey design eliminates cost implications to establish the affordability of the survey design. Treatment in a quasi-experimental or experimental design would require the cost and time of treatment that would constrain the study. The lack of experimentation in the survey design also means reduced risk of harm to research participants, a factor that can motivate participation. The survey design is also better suited for descriptive studies.

People diagnosed as living with and those who have lived with arthralgia until an arthroplasty treatment in Saudi Arabia, and living in the Kingdom, form the population of the study. Clinical diagnosis of the condition, arthroplasty treatment from a certified care facility within the past two years, and the legal minority age constitute the inclusion criteria for the study sample. One hundred and fifty participants were randomly selected from government registries on arthralgia and arthroplasty. The random sampling technique was selceted because of its ability to generate a representative sample and to eliminate sampling bias [13]. The sample size, being larger than 30, is also sufficient for generalization, subject to the assumption of the central limit theorem of the consistency between sample statistics and parameters.

A questionnaire, shown with questions in Table 1, is the data collection instrument, and its ability to capture the targeted data informs its selection. The study seeks to collect data on self-evaluation outcomes of the quality and quantity of sex across three phases following the incidence of arthralgia in an individual. Self-ratings on quality and quantity of sex life, at different phases of experience following the occurrence of arthralgia, were captured in a questionnaire. The use of a questionnaire to collect data in the study by Wang et al. (2014) that investigated the quality of sexual life following a total hip arthroplasty also supports the suitability of the instrument for collecting data on sexual life [12].

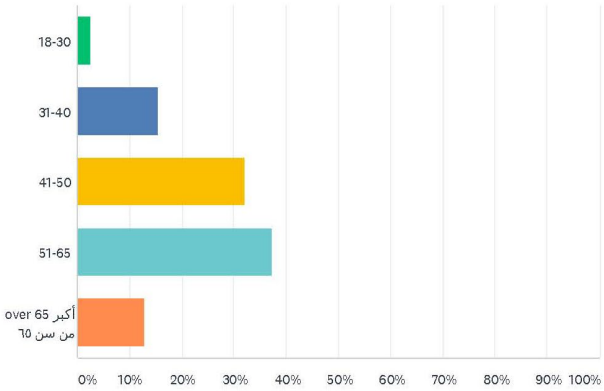
Permission was sought from the agencies managing the targeted data registries following approval by the hospital's ethics review board. Sampled participants were contacted by email and the scope of the study was explained to them before they are asked to participate in the study. Those willing to participate were required to complete informed consent forms. A link to the data collection site was then be sent to the participants' email addresses and a ten-day period was allowed for completing the questionnaire. Data was analyzed using quantitative data analysis software. The survey design ensured the anonymity of participants and respondent were assured of their anonymity and the confidentiality of their data. The lack of treatment ensured the safety of the participants from harm, while the provision for informed consent and the independence of the research participants from the researcher in the data collection procedure ensured autonomy. The data collection instrument did not collect personally identifiable information such as name and other official identification details.

Results of the Study

The results of the survey are divided into the demographic and medical profiles of the sample before giving the results which detail participants' experience of the impact of arthralgia and arthroplasty on their sexual lives.

Demographic Profile

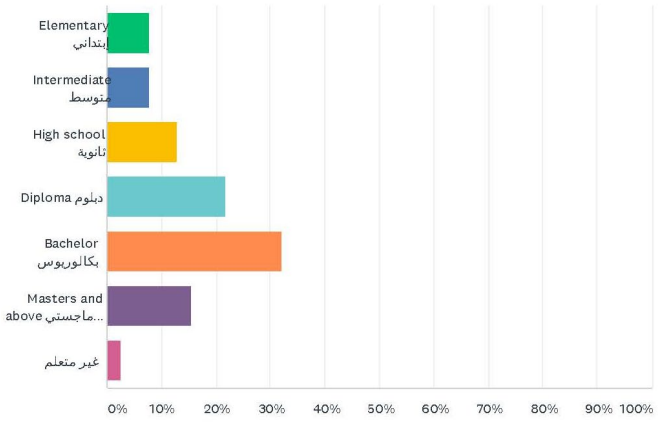
There were 56 men (71.79%) and 22 women (28.21%) in our sample. Ages ranged from 18 to 65+, with the highest number of respondents (29) being aged 51-65 (Figure 1).



ANSWER CHOICES	RESPONSES	
18-30	2.56%	2
31-40	15.38%	12
41-50	32.05%	25
51-65	37.18%	29
over 65 أكبر من سن ٦٥	12.82%	10
TOTAL		78

Figure 1: Age of Respondents.

There was also a spread of level of education in our sample with 27 respondents (34.61%) having Bachelor degrees or above, and 12 (15.38%) being at Intermediate level or below (Figure 2).



ANSWER CHOICES	RESPONSES	
Elementary إبتدائي	7.69%	6
Intermediate متوسط	7.69%	6
High school ثانوية	12.82%	10
Diploma دبلوم	21.79%	17
Bachelor بكالوريوس	32.05%	25
Masters and above ماجستير او اعلى من ذلك	15.38%	12
غير متعلم	2.56%	2
TOTAL		78

Figure 2: Education Level of Respondents.

Medical Profile

Around two thirds of respondents (65.38%) had a medical number at KFSH &RC and the rest (34.62%) did not. Arthralgia of the knee affected 60.26% of participants and 39.74% had arthralgia of the hip. Around half of respondents were yet to have arthroplasty (51.28%), whilst 23.08% had total knee replacements and 25.64% had total hip replacements.

Effects of Arthralgia and Arthroplasty on Sexual Life

The results clearly demonstrate that arthralgia and arthroplasty affected the sexual life of our sample.

Arthralgia

Physical capacity for sex was clearly shown to be seriously affected by arthralgia. The average number of times of having sex in a week reduced from an average of over 3times a week to less than twice a week; and on average participants estimated number of minutes for sex as 18 before the onset of arthralgia and only 11 after. This reduction in sexual activity would appear to have been caused among other factors by pain, joint stiffness and fatigue. The highest pain levels of 8, 9 and 10 were reported by only 9 out of 78 participants before arthralgia [pain can be due to many other factors] but this rose to 28 after arthralgia; the weighted average level of joint stiffness was only 2 before arthralgia but 5 after; and fatigue levels went from an average of 2.8 to 5.3.

The picture was a little different for psychological effects of arthralgia on sexual life. Average level of desire for sex hardly diminished (5.9 before and 5 after arthralgia); although anxiety increased from 2 to 5 and depression from 2.8 to 5.3. The average level of the individual's sense of their desirability also remained fairly stable (5.3 before and 5.4 after arthralgia).

Arthroplasty

At the end of the questionnaire, participants were given the chance to comment. Only nine participants chose to comment, sometimes just to say 'thanks'. However, a few of these comments are worthy of note as they highlighted areas for further research needed in the field (see Recommendations).

Targeted Outcome

The development of knowledge on the effects of arthralgia and arthroplasty on sex life in Saudi Arabia is one of the targeted outcomes of the study. A dearth of knowledge exists on the effects of arthralgia and arthroplasty within the context of Saudi Arabia as well as on the effects of the wider scope of arthralgia. The study seeks to bridge the gap for a better understanding of the

significance of arthralgia to sex life. The study, in establishing the effects of arthralgia and arthroplasty is also expected to contribute to the quality of life of people living with arthralgia in the Kingdom of Saudi Arabia by forming bases for promoting quality of sexual life of the patients. Establishing the significance of arthroplasty, for example, is likely to inform the need for joint reconstruction or replacement towards overcoming possible barriers of arthralgia to the quality of sexual life.

Limitations

The use of the survey design for the study is one of the significant limitations. The survey design is appropriate for descriptive studies instead of studies on cause and effect relationships that the study seeks to establish. The inability of the survey design to control extraneous variables in a study establishes a likely threat to the validity of data on effects of arthralgia and arthroplasty. Adaptation to constraints due to arthralgia and other physiological and psychological factors after arthroplasty could influence sex life besides the effects of arthralgia and arthroplasty. Another limitation of the study is the research approach that collects data about patients retrospectively. Being accustomed to a condition is a threat to the accuracy with which historical data can be recalled. As a result, participants' ratings on experiences before arthroplasty could be inaccurate.

Recommendations

- Given the main limitation of the study was the necessity for patients to assess their experiences retrospectively future research might consider a longitudinal approach to mitigate this. Pre-operative patients with arthralgia could be asked to assess the effects of the condition on their sexual performance and experience and then these patients would be questioned again post-operatively.
- As already noted, it is not easy to identify intervening variables (such as other physical and psychological conditions) that affect sexual life beyond simply that of arthralgia and arthroplasty. This could be addressed by conducting in-depth interviews with patients where such variables could be identified.
- Although age is not always an indicator of sexual activity, it can impact on libido and be an important variable in people's sexual life. As one participant in our study remarked: "*When you get older of course your sex will be affected, especially as I am 85 years old*"
- Therefore, it would be interesting to conduct surveys with two separate age cohorts and compare results.
- Three comments from our sample indicate patients' attitudes expectations and needs regarding arthroplasty need further investigation. Firstly, although the literature shows that arthroplasty improves but does not always restore function, some patients may have overly high expectations, as this comment demonstrates: "*I will have an operation very soon; then all my answers will change*."

Two further comments show patients' need for more information:

"*Will having sex affect the joint?*"

"*There is no awareness of the appropriate positions for both wife and husband after arthroplasty – and fear of damaging the joint during intimacy*."

These comments suggest that the relevant units in hospitals and clinics would find such research useful to planning their pre and post-operative support for patients.

Expected Contributions

The study expects to establish the significance of arthralgia to the quality of sexual life in the Kingdom of Saudi Arabia. The significance of joint pain due to different forms of complications, such as rheumatoid arthritis (Tristano, 2014) [7] and osteoarthritis (American Academy of Orthopaedic Surgeons, 2013) [8], to the quality of sex life establish the likely adverse significant effects of arthralgia on the quality of sex life in Saudi Arabia. Similarly, positive effects of arthroplasty are expected in Saudi Arabia, though with a probability of some lack of positive effects.

Conclusion

The study, based on a dearth of knowledge on the general effects of arthralgia on sex life as well as the effects of arthralgia and arthroplasty on sex life in Saudi Arabia, seeks to investigate the effects of arthralgia and arthroplasty in the kingdom. The scope of the study that is consistent with the assumptions of the post-positivist paradigm together with the advantages of the quantitative method informs the selection of the method for the study. The survey design that is simple, affordable, and has few legal and moral implication is proposed for implementing the study using a questionnaire. Randomly selected 150 individuals with experience of arthralgia and/or arthroplasty will participate in the study. Ethical approval, informed consent, and anonymity will ensure the ethical soundness of the study while the use of a questionnaire and quantitative data analysis software will establish a significant level of validity. The study, therefore, is feasible and it will realize significant levels of reliability and validity for contribution to knowledge and practice for the promotion of sex life in the Kingdom of Saudi Arabia.

References

1. Rabinovich C. (2011) 'Rheumatic diseases of childhood', in R Kliegman, B Stanton, J Geme, N Schor, & R Behrman (Eds), Nelson textbook of pediatrics, 19th Edn, Elsevier Health Sciences, Philadelphia, 129.

2. Scott K, Temme K (2015) 'Sexual dysfunction and disability', D Cifu (Ed), Braddom's physical medicine and rehabilitation, 5th Edn, Elsevier Health Sciences, Philadelphia, 469-486.

3. Quervain I (2012) 'Gait analysis in knees and total knee arthroplasty', in U Munzinger, J Boldt, & P Keblish (Eds), Primary knee arthroplasty, Springer, New York, n.p.

4. Galliker L 2015, Joint replacement, ABDO, Minneapolis.

5. Goel S (2005) Sex for life, Diamond Pocket Books (P) Ltd, New Delhi.

6. Brown P (2011) 'Intimacy, sexuality, and aging', in J Lange (Ed), The nurse's role in promoting optimal health of older adults: Thriving in the wisdom years, F.A. Davis, Philadelphia 206-222.

7. Tristano A (2014) 'Impact of rheumatoid arthritis on sexual function', World Journal of Orthopedics, 5: 107-111.

8. American Academy of Orthopaedic Surgeons (2013) Sexual function improves significantly after hip or knee replacement surgery, research finds, Science Daily.

9. Bade M, Kohrt W, Stevens-Lapsley J (2010) 'Outcomes before and after total knee arthroplasty compared to healthy adults', Journal of Orthopaedic & Sports Physical Therapy, 40: 559-567

10. Meiri R, Rosenbaum R, Kalichman L (2014) 'Sexual function before and after total hip replacement: Narrative review', Sex Med, 2: 159-167.

11. Harmsen R, Hhaanstra T, Sierevelt I, Jansma E, Nolte P, et al. (2016) 'Ddoes total hip replacement affect sexual quality of life?' BMC Musculoskeletal Disorders, 17: 201.

12. Wang B, Yue D, Liu B, Guo W. (2014) 'Quality of sexual life after total heap arthroplasty in male patients with osteonecrosis of femoral head', European Journal of Orthopaedic Surgery & Traumatology, 24: 1217-1221.

13. Creswell, J (2014) Research design: Qualitative, quantitative, and mixed methods approaches, 4th Edn, SAGE, London.

14. Harvey M & Land L (2016) Research methods for nurses and midwives: Theory and practice, SAGE, Thousand Oaks.