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REVIEWS

Sexual Function before and after Total Hip Replacement: Narrative Review

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ABSTRACT

Background. More than 1 million total hip replacements (THRs) are performed every year worldwide. Achieving decreased pain, increased mobility, and improved quality of life (QoL) are key factors in the decision to undergo THR. Sexual activity is a valued component of QoL; however, little is known about how THR affects sexual functioning or the extent to which health care providers address sexuality in THR patients.
Aim. The aim of the study was to assess the literature regarding sexuality and sexual function in patients before and after THR.
Methods. PubMed, Google Scholar, and PEDro databases were searched without search limitations from inception until December 2013 for terms relating to sexual function and THR.
Results. Sexual activity before and after a THR is an important QoL issue. In patients with end-stage hip osteoarthritis, THR has been reported to have beneficial effects in restoring sexual satisfaction and performance. While research has recently been conducted to determine the range of motion of the hip joints necessary to execute certain sexual positions, there remains a lack of validated guidelines and the risks related to sexual activity after THR is rarely discussed between patients and medical staff.
Conclusions. The ability to move comfortably is included among the many physical and psychosocial factors influencing sexual functioning. Practitioners should be encouraged to question their THR patients about sexual concerns and to provide counseling related to physical and functional aspects of sexual activity. Rehabilitation that focuses specifically on activities of daily living of sex should include sexual counseling, therapeutic exercise, and advice regarding sexual positions. Rehabilitation provided by physical therapists may help decrease pain, and facilitate greater self-awareness, self-confidence, and improved body image, all of which encourage and affirm optimal sexual health. **Meiri R, Rosenbaum TY, and Kalichman L. Sexual function before and after total hip replacement: Narrative review. Sex Med 2014;2:159–167.**

Key Words. Sexual Dysfunction; Total Hip Replacement; Quality of Life; End-Stage Hip Osteoarthritis

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Introduction

Healthy sexuality is an important and life-affirming part of being human. While the desire to engage in sex is dependent on a variety of biological, psychological, and sociological factors, the capacity to experience optimal comfort, pleasure, and satisfaction also requires basic physical abilities. Essentially, these include intact sensory and motor processes, and the ability to move with relative ease [1]. Musculoskeletal and rheumatologic disorders affect this ability. In a study of 121 patient ≤60 years old, who underwent surgery for hip osteoarthritis (OA) [2], nearly 2/3 reported sexual difficulties, that were reported to be caused by hip pain and stiffness rather than to loss of libido.

Hip OA is a recognized public health concern. The population prevalence of symptomatic hip OA among people ages 45 years and older was 6.7% in the Framingham OA study and 9.7% in the Johnston County Osteoarthritis Project [3–5]. Recent systematic review on OA prevalence [6] demonstrated that self-reported hip OA prevalence varied between 6.2 and 12.3% in general population, symptomatic OA prevalence varied between 1.5% in general sample, and 8.0% in individuals >60 years old. The end stage of hip OA significantly affects individuals' life causing pain, deformity, stiffness, immobility, negative body image, restricting hip range of motion (ROM), and others. While the pain and deformity of end-stage hip OA are likely to negatively influence sexual activity, little research has been devoted to exploring this effect.

Total hip replacement (THR) is a cost-effective surgical procedure, whereby the entire hip joint is replaced by a prosthesis [7], with the purpose of relieving pain and restoring function to the arthritic hip joint. Restoring the ability to engage in sex may actually be a motivating factor in patients choosing THR. More than 1 million THRs are done every year worldwide, and this number is predicted to double within the next two decades [8–10]. Symptomatic OA is the indication for surgery in more than 90% of patients, and its incidence is increasing because of an aging population and the obesity epidemic [7].

The rehabilitation period after a THR ranges from 6 to12 months [9,11], and during this period, individuals have numerous limitations in their hip movement in order to avoid prosthesis dislocation. This limitation, along with pain and fear of damaging the prosthesis, may significantly affect sexual activity. Sexual problems may, in themselves, constitute an indication for THR, even in cases where the general condition of the patient makes ambulation an unrealistic objective for treatment [12].

After THR, patients may continue to report impaired physical quality of life (QoL) and hip functionality [13]. However, THR significantly improves individuals' QoL compared with untreated patients with severe hip OA [13]. Several studies that specifically addressed sexual function after THR reported that successful THR improves sexual satisfaction and performance in most patients [2,12,14,15]. On the other hand, it is evident that the sexual activity problems of THR patients are underestimated and should be addressed by medical staff, even if the patients themselves do not explicitly request it [11].

In this narrative review, we provide background on THR, assess the literature regarding sexuality in patients before and after THR, and discuss contributors to sexual dysfunction and differences in sexual dysfunction between men and women after THR. We report on the attitude of health care professionals in addressing sexuality in this population, discuss sexual positions recommended after THR, and provide the clinical practice implications.

Methods

PubMed, PEDro, and Google Scholar databases were searched from inception until December 2013, using predefined search strategy. The databases were searched for the key words "sex," "sexual dysfunction," "sexual health," "sexual behavior," "sex position," "questionnaire," "total hip arthroplasty," "total hip replacement," "men," "women," "quality of life," "erection," "rehabilitation," and their combination.

Criteria for inclusion in the review were use of any type of research on prevalence, etiology, natural history, evaluation, and treatment of sexual dysfunction after THR. Trials of any design and methodological quality were included. The reference lists of all articles retrieved in full were also searched. All relevant articles in English were reviewed. We critically analyzed all published material. We are aware that this traditional approach to narrative reviews has more potential for bias than systematic reviews; however, we have endeavored to be inclusive and open-minded.

The search results were pooled and duplicates were deleted. The titles and abstracts of all articles were reviewed. Full texts of potentially relevant

papers were read and their reference lists were searched for additional relevant articles. After excluding all irrelevant papers, a total of 44 publications were included in the review.

Results

Background on THR

The THR is an orthopedic procedure that is performed more than 285,000 times annually in the United States [9], more than 30,000 in Canada [16], 170,000 in Germany, and 65,000 in England and Wales [17]. The presence of severe and continuing pain and disability, and the inability to perform one's job or participate in social and leisure activities generally inform the decision to undergo surgery. Data indicate that 62% of all THR procedures that are performed in the United States are on women, with 2/3 of these procedures performed in individuals older than 65 years of age [9].

The primary indications for a THR are severe OA, rheumatoid arthritis, avascular necrosis, traumatic arthritis, hip fractures, benign and malignant bone tumors, arthritis associated with Paget's disease, ankylosing spondylitis, juvenile rheumatoid arthritis [9], but an unacceptable compromise in QoL represents the main indication for THR in many individuals [18].

The most widely used approaches for THR are the posterior, transtrochanteric, direct lateral, and anterolateral approaches [10]. Dislocation after THR is a relatively common major complication, occurring in 0.6–7% of patients [19]. Approximately 2–3% of primary THRs will dislocate, and 59% of THR dislocations are reported to occur within the first 3 months postoperatively. Despite differences in relative risk of dislocation for anterior and posterior approaches, posterior dislocation with flexion and adduction is a considerable risk after THR with the anterior and posterior approaches, and patients having THR through either approach routinely should be counseled to avoid this position [19].

Patients who have undergone a THR must follow three major rules in order to avoid hip dislocation. These rules are as follows: avoid internal rotation of the affected leg, avoid flexing the hip more than 90°, and do not cross the legs or ankles [20]. Any of these motions, singularly or in combination, may produce a dislocation of the replacement. The complication of hip dislocation is more likely to occur in a patient who presents with a neurological disorder or is mentally confused [21].

Influence of Hip OA and THR on Sexuality

End-stage hip OA may interfere with sexual function, although this is rarely discussed with patients and a paucity of literature exists on this subject [15]. The major rehabilitation goal after THR is to increase patient's ability to function. This should include sexual function as well.

In 1970, Currey [2] first drew attention to the problems with sexual activity of hip OA patients and in a retrospective study of 121 relatively young (≤60 years old) patients with hip OA and found that nearly 2/3 reported sexual difficulties. These difficulties were relatively more common in women, and were reported to be caused by hip pain and stiffness rather than to loss of libido. One-quarter of these patients recognized this as a definite contributor to marital unhappiness. Authors concluded that THR is the most successful operation in relieving sexual problems caused by hip OA. Similarly, Todd et al., [15] in a retrospective study of middle-aged patients with hip OA, found a decrease in reported sexual problems after Charnley arthroplasty (an early variant of THR). In another retrospective study of 86 patients (average age 57 years, range 20–70 years) who had a successful THR, Stern et al. [14] discovered that 46% reported sexual difficulties preoperatively, whereas only 1% reported them postoperatively. This indicates that at least in a younger cohort of patients, sexual problems may result mainly from hip OA. A prospective study of 56 hip OA patients (average age 65 years, range 20–79 years), Wiklund and Romanus [22] demonstrated that THR had beneficial effects on all functions concerning QoL, including sexual function. The limitation of this study was the use of the Nottingham Health Profile to assess the QoL, which addresses sexual function with only one question as follows: "Is your present state of health causing problems with your sex life?" Therefore, no information regarding which domains of sexual function were influenced was available. Jean-Michel Laffosse and his colleagues [11] in retrospective study of 135 patients ≤65 years old (mean 51.8 years [22–65 years], who had undergone a THR, specifically addressed sexual function before and after THR. They found that sexual difficulties first occurred about 2.5 years after the appearance of hip pain. Nineteen percent of patients considered their sexual difficulties to be severe to extreme. This caused relationship distress for 7% of patients. The cause for the sexual difficulty was reported to be pain followed by stiffness in a hip joint. For majority of patients, THR was

associated with an improvement in sexual activity. The frequency of sexual relations increased significantly, more in women than in men.

Baldursson and Brattström [12], using a self-designed questionnaire, interviewed 44 patients who underwent THR caused by rheumatoid arthritis. Preoperatively, 28 (63.6%) patients reported sexual problems which they attributed to hip symptoms. Following THR, 27 patients no longer considered the hip symptoms to be the cause of sexual difficulties, but in 10 of those patients other problems remained, which affected sexual function.

In summary of the findings, individuals who suffer from severe hip problem, caused by end-stage hip OA, rheumatoid arthritis, and other hip problems, report a high prevalence of sexual problems. In the majority of these patients, THR was associated with improvement in sexual activity.

Evaluation of Sexual Dysfunctions in Hip OA and THR Patients

Despite the findings of our review, that sexual function is affected by hip OA, and many patients choose THR seeking to improve sexual QoL, we were curious to discover that of the many scales evaluating function and QoL fail to address sexual activity. There are several questionnaires and scores used to evaluate function and QoL in patients with hip problems before or after THR: Western Ontario and McMaster University Questionnaire [23], Hip Disability and Osteoarthritis Outcome Score [24], Harris Hip Score [25], Iowa Hip Score, Oxford Hip Score [26], Merle d'Aubigne Hip Score [27], the Short Form (36) Health Survey (SF-36) [28], and others. None of these scales include specific questions about sexual activity and therefore do not evaluate all aspects of QoL. Patients may not feel free to initiate discussion of their sexual activity with orthopedic surgeons, although 32% of those planning to undergo THR reported concern about difficulties in sexual activity [12,29]. Furthermore, for many, the difficulties with sexual activity inherent to their chronic hip pain constitute an essential factor in the decision to undergo the operation [14].

In a pilot study of presurgical hip OA patients using open-ended interviews, researchers identified 16 main complaints, including discomfort during sexual activity, which is not included in any other hip-rating scales in general use [29]. Authors found that daytime pain and walking difficulties were the main complaints. However, experiencing pain during sexual activity was compelling enough for some patients to request hip replacement.

In contrast to the questionnaires cited earlier, we found that some tools do include questions on sexual activity in their evaluation of health-related QoL. Lequesne's AlgoFunctional Index [30], in which 2 out of 30 points are allocated to sexual difficulties, and the SICOT (Société Internationale de Chirurgie Orthopédique et Traumalogie) score [31] are used for patients for whom an indication for surgery is under discussion. However, these score has been widely superseded in daily practice by the Harris score [25] and the Postel–Merle d'Aubigné score [27] for clinical evaluation of hip.

What Affects Sexual Function?

It is difficult to isolate singular factors which are causal to sexual problems in patients with hip problems. Some studies indicate that more than half the patients suffering from sexual difficulties reported sexual problems as being directly related to their chronic hip pain and stiffness [2,15]. In 5–10% [2,14,15], however, this led to a cessation in all sexual relations rather than modification of sexual activities and positions. Pain, the fear of an increase in pain, fatigue, and stiffness may be the principal causes [14]. However, other factors are likely to contribute as well [2,32]. Chronic pain and disability lead to fatigue and, often, a decrease in sex drive. Attempt to modify positions may damage other joints, particularly the spinal column, in the case of chronic inflammatory rheumatism (rheumatoid arthritis, ankylosing spondylitis, etc.) occurring early on in young patients [11]. The side effects of medication can also affect desire and arousal in men and women, including morphine based analgesics, tricyclic antidepressants, benzodiazepines, muscle relaxants, and others, as well as the depressive effect associated with any chronic disorder [11].

While THR can lessen sexual problems caused by joint-related pain and disability, other sexual problems may remain because of other confounding factors, such as aging, medical problems, psychosocial, and relationship factors. Aging can contribute to delay of reactions to sexual stimulation or decrease the intensity and perception of the sexual response. Patients having difficulties adjusting to such circumstances may benefit from counseling by a sex counselor or sex therapist [33].

Gender Differences

In men, pain and stiffness of the hip and loss of libido contributed equally to loss of sexual function. In women, joint stiffness was the main cause of sexual dysfunction, but pain was also an important factor. Limitation in hip ROM is a major factor in deciding to perform THR in young women [15].

On the other hand, after THR, the dislocation of the prosthesis is a frequent cause of implant failure that occurs because of impingement. The computed impingements in sexual positions for women were located in the antero-superior area of the acetabulum leading to posterior subluxation. In male positions, they were located in the postero-inferior acetabular area leading to anterior subluxation [34]. These instability patterns were consistent with previous studies [35,36].

A study of women in their childbearing years who underwent THR demonstrated that 72% of women reported decreased hip pain during sexual intercourse and 38% reported improved mobility during intercourse [37]. However, only 33% of the women reported an increase in the overall quality of sexual relations. This emphasizes that whereas elimination of pain may ultimately improve sexual life, additional factors must be considered in assessing the quality of sexual relations and points to the need for sexual counseling in this population. Expectations of resumed, improved, or more frequent sexual relations with the ensuing disruption of the relational and familial status quo may well be an unspoken and potential source of anxiety [37]. Partner communication around sexual expectations may be encouraged to address this anxiety.

Compared with men, women report more disability, more work strain, higher levels of posttraumatic stress reactions, a lower self-esteem, and poorer coping capacity in response to musculoskeletal pain [38]. These findings illustrate overall poorer adjustment to pain in women than in men and may help explain the distinct effects of pain on the sexual response of women.

Men after THR tend to resume sexual activity earlier that women, partly because there is less ROM required from hip joints during sexual relations (no abduction and external rotation). In addition, men use the same positions before and after THR since they typically do not involve abduction, whereas for women, positions differ considerably between the preoperative period, where positions requiring little mobility are chosen, and the postoperative period, where positions with abduction and external rotation in a supine position are preferred. They present a low risk of dislocation, which is the principal fear in sexual relations after a hip replacement [11].

Nordentoft et al. [39] have demonstrated a negative impact on sexual activity and, especially, on erectile function in elderly males undergoing total hip or knee replacement. In this study, 26.1% of the patients reported decreased erectile function during the follow-up period after hip or knee replacement, while the expectation for that age cohort was only 3%. Therefore, the loss of erectile function cannot be explained by age or by direct effect of the operation. The authors concluded that THR is an independent risk factor for development of erectile dysfunction.

Patients' Preferences Regarding Information on Sexual Functioning after THR

Jean-Michel Laffosse et al. [11] investigated patient preferences as well as experiences and found that patients preferred the surgeon, followed by the physical therapist, to deliver such information verbally and to provide a booklet as an appropriate addendum. In regard to partner education, patients preferred the partner be in attendance with the surgeon when sexual activity is discussed. Patients reported concern that the partner may overprotect the patient or confine them to the role of "invalid." This concern highlights again the complex nature of sexual dynamics. While sexual function may have been impacted by pain and stiffness preoperatively, the postoperative return to sexual activity may be complicated by additional challenges including patient fragility, temporary loss of independence, effect on role identity, and shift of partner role to that of caretaker.

Currey [2] described the preference of the patients regarding the medical staff they prefer for consultation on sexual function after THR. The analysis is limited to 59 women and 22 men presenting with limitations in sexual functioning caused by arthritis. Of these, a total of 13 (16%) preferred to discuss their problems with family physician, 17 (21%) with a hospital physician, 5 (6%) with a (female) medical social worker, and 39 (48%) favored a booklet. Stern et al. [14] found that 65% of the THR patients would have found a discussion with their surgeons beneficial.

Attitude of Medical Staff to Sexual Problems of THR Patients

Dahm et al. [19] highlighted the relative lack of communication between patients and surgeons regarding return to sexual activity after THR. Despite the fact that 89% of patients have been reported to desire more information regarding the return to sexual activity after THR, the data show that most experienced hip surgeons surveyed rarely or never discuss sex after THR with their patients. For those who discuss a return to sexual activity with their patients, most spend less than 5 minutes on the topic [19]. This is notwithstanding the fact that THR carries a risk of dislocation that can occur when the hip is flexed >90° or when rotated [40]. Jean-Michel Laffosse et al. [11] found that only 17.3% of patients received information concerning sexual activity before and/or after THR. Only 10.5% were informed of a waiting period before resumption of sexual activity, but 21% of patients were informed about at-risk sexual positions to avoid. Information was provided most often by the physical therapist in charge of rehabilitation in the first postoperative days in the department.

While the literature indicates that patients desire information regarding sexual activity post-THR, it is unclear who is best suited to provide this service. In a survey of members of the American Association of Hip and Knee Surgeons in 2012, surgeons reported they were more likely to discuss return to sexual activity with married patients than with single patients. Surgeons whose practices included a larger proportion of younger patients (≤65 years) also were more likely to discuss sex with their patients. These findings are consistent with other studies indicating a presumptive attitude of health care professionals toward sexuality of the elderly, the disabled, and the unmarried [41]. Physical therapists rarely discuss sex with their patients as well, citing embarrassment, lack of proper training to address issues of a sexual nature, as well as mistaken assumptions that sexuality is not a concern because of advanced age, disability, or marital status [1]. McFadden [20] emphasized the role of the orthopedic nurse, who should instruct postoperative patients and their partners on the return to sexual activity, including counseling in positions safe for preventing posterior hip dislocations.

Postoperative Information about Sexual Function

In the immediate postoperative period, the role of the rehabilitation team, after introducing and requesting permission to discuss the topic, should provide education regarding sexual options and providing clear and detailed information to limit the risk of dislocation during the activities of daily life and during sexual activity. The only limit to early resumption of sexual relations is the risk of dislocation, so the "authorized" positions should be mentioned clearly and, if necessary, accompanied by simple diagrams [11].

A period of 1 month is required to give periarticular tissue (particularly the posterior stabilizing structures), the skin, and subcutaneous tissue time to heal. The latter can be painful, particularly if the procedure was carried out using the posterior approach. The anterior and anterolateral approaches present less risk of early postoperative dislocation and permit earlier resumption of sexual activity [10].

Precautions should be advised for 1–3 months after the procedure, which is when 75% of dislocations occur [42,43]. Sexual relations can be resumed safely between 1 and 2 months after the THR in the supine position, and after 3 months, there should be no limitations, apart from extreme positions, for example, when the operated hip is fully flexed. Lateral decubitus positions (sideling) are not advised in the immediate postoperative period since they are at-risk positions and can promote adduction and internal rotation. The lower leg needs to be stabilized by a cushion or by the partner [14], but this very necessary precaution can be uncomfortable during sexual intercourse [11].

Postoperatively, mobility restrictions are associated with joint replacement surgery, yet few resources are available delineating when patients may resume sexual activity, and few recommendations are made available to these clients. This scant attention to sex is not restricted to elderly populations [1].

Positions Recommended

Most recommendations on coital positions are based on expert opinion, not on a research. Laffosse et al. [11] stated that the only limit to resuming sexual activity after a THR is that this particular act puts the patient at a high risk for dislocation. According to the authors, the recommended coital position for preventing hip dislocation in women is the supine (missionary) position because it presents a low risk of dislocation, which is the principal fear in sexual relations after a hip replacement. These positions can therefore be resumed early on without risk. Men used the same positions before and after THR since they do not

involve abduction. Aikawa et al. [44] also recommended the supine position at maximum abduction in extension as the safest position for men and women. Dahm et al. [19] asked surgeons to review 12 coital positions and decide which position was the safest at preventing posterior hip dislocations. The results showed that five positions were acceptable for the male and three positions for the female who had undergone a THR. The one position that 90% of the surgeons agreed upon to be the safest position for either the man or woman was that both partners are standing with the woman slightly bent at the waist and the man approaching the woman from behind. We found no data on sexual positions for men having sex with men or women with women.

Charbonnier et al. [34] conducted an in vivo study using optical motion capture and magnetic resonance imaging (MRI) in order to accurately determine hip joint kinematics during sexual activity after THR. Twelve common sexual positions previously used in Dahm et al. [19] study were evaluated. Most sexual positions for women required flexion, abduction, and mostly external rotation. For men, flexion and abduction remained in the normal range, but external rotation was dominant for all positions. Impingements that may cause prosthesis dislocation occurred in sexual positions for women requiring the highest hip flexion combined with abduction. Sexual positions for men required less mobility and could be therefore considered as safer. The results of the Charbonnier et al. [34] simulation indicated that only four positions for women (rear penetration, woman on top and leaning forward, face-to-face side lying, and the "T-square" [woman lies supine with knees flexed and legs apart, man lies on a side perpendicular to the woman, with the man's hips under the arch formed by woman's legs]) and one position for men (face-to-face side lying) should be avoided after THR.

Discussion

Sexual functioning is valued component of QoL. Patients with severe hip OA who are unable to engage in sexual intercourse may seek THR to decrease pain and improve overall function, including sexual function. Patients undergoing THR are often concerned about when they may resume sexual activity, and which positions are safe. Many may have experienced limitations in sexual activity because of chronic and prolonged hip pain and stiffness, and look forward to surgical outcomes that may improve their mobility and, hence, their sexual lives.

Discussion of sexual activity by surgeons with patients after THR occurs infrequently and only briefly, despite the importance of these issues to patients. Questions on sexual activity are rarely taken into account in the functional scores that are usually used to evaluate the outcome of hip arthroplasties.

There is a need for better education regarding sexual activity after THR for both the patients and their partners. Discussion about sexual activities and functioning should be part of the preoperative assessment and initial information about sexual activity should be shared prior to surgery. In the immediate postoperative period, the role of the surgeon, the physical therapist, and the rehabilitation specialist should be to provide options and specific suggestions, including noncoital sexual activities, while giving clear and detailed information to limit the risk of dislocation during the activities of daily life including during sexual activity. Safe coital positioning should be stated clearly and, if necessary, the explanation should be accompanied by diagrams. If there is instability of the prosthesis, patients must be told which hip positions to avoid.

The subject remains largely unexplored, according the literature. We found three educational articles, eight research articles, and one review related to this particular topic. The literature we reviewed explored the following issues in relation to sex: the extent to which THR improves or affects sexual functioning, knowledge, and attitudes, and of heath care workers and communication with patients about their sexual lives prior to or post-THR, patient's perceptions and experiences regarding communication with health care professionals about sexual functioning post-THR, and optimal positioning for sexual intercourse.

All reviewed studies, except for one, indicated that THR improves sexual function. In the exceptional article, Nordentoft et al. [39] analyzed sexual and erectile function before and after hip and knee replacement in a cohort of 99 men with a mean age of 70.6 ± 14 years. They found that 17% of patients had lost/stopped all sexual activity postoperatively with no improvement at 6 months, and that 26% had major erectile disorders with an improvement in only 6% of cases after 6 months. From the results of this study and the literature, they conclude that males, who are having an increased risk of developing erectile dysfunction because of age, further increase this risk by under-

going total hip or knee replacement. It is likely that any major surgery may have the same effect on elderly males.

The review of literature reveals that sexual relations which include intercourse can be resumed safely between 1 and 2 months after THR in the supine position, and after 3 months, there should be no limitations, apart from extreme positions. The recommended coital position at preventing hip dislocation is the supine (missionary) position. Although the majority of the literature recommends the supine (missionary) position, two studies concluded that there are several safe positions for both men and women. One recent study used MRI to investigate 12 different sexual positions performed by only two healthy volunteers, and found that eight positions are safe for women and 11 are safe for men [34]. Based on the consensus opinions obtained from a large sample of experienced joint replacement surgeons, Dahm et al. [19] reported that five positions are acceptable for the man and three positions for the woman who had undergone a THR. The one position that 90% of the surgeons agreed upon to be the safest position for either the man or woman was that the man and woman are both standing with the woman slightly bent at the waist with the man approaching the woman from behind.

Sexual positions for women typically require extreme hip ROM (high flexion combined with abduction and mostly external rotation), whereas sexual positions for men require less mobility (but with pronounced external rotation). Men tend to resume sexual activity earlier, partly because there is less force applied to the ROM of joints during sexual relations for men (no abduction and external rotation). We also found that men used the same positions before and after THR since they do not usually involve abduction, whereas for women, positions differ considerably between the preoperative period where positions requiring little mobility are chosen, and the postoperative period, where positions with abduction and external rotation in a supine position are preferred. Additional factors may contribute to gender differences in resuming sexual activity as well. Additional studies are needed on the topic regarding which coital position is safe after a THR in preventing posterior hip dislocation.

Conclusions

In this narrative review, we have provided background on THR, assessed the literature regarding sexuality in patients before and after THR, and discussed contributors to sexual dysfunction and differences in sexual dysfunction between men and women after THR. We reported on the attitude of health care professionals in addressing sexuality in this population, and discussed sexual positions recommended after THR. Practitioners should question their THR patients about sexual concerns and provide counseling related to physical and functional aspects of sexual activity. It is of great value to discuss sexuality with the patient when hip surgery is being contemplated. Rehabilitation that focuses specifically on activities of daily living of sex should include sexual counseling, therapeutic exercise, and advice regarding sexual positions. Rehabilitation provided by physical therapists may help decrease pain, and facilitate greater self-awareness, self-confidence, and improved body image, all of which encourage and affirm optimal sexual health.

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