

**SEXUAL WELLBEING OF PATIENTS WITH SPINAL CORD
INJURY : AN APPROACH FROM PHYSIOTHERAPIST'S
PERSPECTIVE**

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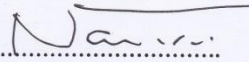
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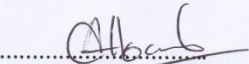
SEXUAL WELLBEING OF PATIENTS WITH SPINAL CORD INJURY

: AN APPROACH FROM PHYSIOTHERAPIST'S PERSPECTIVE

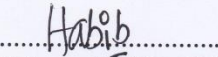
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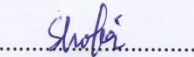
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Declaration

I declare that the work presented here is my own. All sources used have been cited appropriately. Any mistakes or inaccuracies are my own. I also declare that for any publication, presentation or dissemination of information of the study. I would be bound to take written consent from the Department of Physiotherapy of Bangladesh Health Professions Institute (BHPI).

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Verbal consent in Bangla

Questionnaire in Bangla

Verbal consent in English

Questionnaire in English

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Acronyms

- ASIA** - American Spinal Cord Injury Association.
- AIS** - ASIA Impairment Scale.
- AD** - Autonomic Dysreflexia.
- BHPI** - Bangladesh Health Professions Institute.
- BMRC** - Bangladesh Medical Research Council.
- CRP** - Center for the Rehabilitation of the Paralysed.
- ISNCSCI** - International Standards for Neurological Classification of Spinal Cord Injury
- IRB** - Institutional Review Board.
- QOL** - Quality of Life.
- WHO** - World Health Organization.

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Abstract

Objectives : The purpose of the study was to explore the approach of physiotherapists to discuss about sexual wellbeing of patients with SCI. Try to find out the barriers and knowledge about sexual issue. Know about present service condition and training needs of physiotherapists to discuss about sexuality of patients with SCI.

Methodology: Qualitative study design with face to face interview with purposive sampling and thematic analysis was done. Open-ended question in BENGALI was used for this study.

Result : In this study found five themes. That are, **Theme 1-** Sexual education to patients is yet to prioritize by health care professional including physiotherapists. **Theme 2-** Sexual rehabilitation should be included as an essential part in SCI rehabilitation to ensure better life for patients. **Theme 3-** Privacy and proper environment is needed to establish sexual rehabilitation. **Theme 4-** Sex and sexuality education for patients should be placed in formal university curriculum.. **Theme 5-**Update staff training on sexual education will ensure comprehensive rehabilitation that could improve service.

Discussion: Sexual wellbeing such a topic that physiotherapists do not work with this frequently but frequently raised by patients with SCI. Lack of update knowledge and proper training are working as barriers to discuss this issues. Beside this , change in internal structure of rehabilitation can improve service. Appropriate training and proper knowledge is needed for physiotherapists and also for new graduates .

Conclusion : Staff training and basic knowledge on sexual education for patients is needed for physiotherapists who deal with the patients with SCI to improve professional skill. Along with this, addition this topic to curriculum can prepare the upcoming professional more competent to provide comprehensive service.

Key word : Sexual wellbeing, Sexuality, Physiotherapist, SC

1.1 Background

Spinal cord injury (SCI) usually generates severe and rather permanent impairment or even loss of basic functions, such as: voluntary or active mobility, sensitivity, micturition and or defecation control, erection or ejaculation, fertility. Therefore, SCI are, in most of the cases, devastating, especially as being frequently irreversible (Onose et al., 2013). The most obvious consequence of spinal cord injury (SCI) is paralysis. The most widespread consequences for many body functions, including bladder, bowel, respiratory, cardiovascular and sexual function. Spinal cord injury also has social, financial and psychological implications, and increases people's susceptibility to late-life renal complications as well as musculoskeletal injuries, pain, osteoporosis and other problems (Harvey, 2016).

Generally the devastating consequences and disorders of spinal cord injury include impairment in physical, psychological, and social functioning. All over the world spinal cord injury (SCI) is a catastrophic event that is sudden and unexpected and can be devastating and costly in human and social terms. Despite the immense of health care and also regarding with personal cost associate with spinal cord injury, there has a surprising paucity of data of regarding incidence and prevalence all over the world (Nooman et al., 2012).

Globally, as given recent information on the number of people living with TSCI (prevalence) as well as the number of new cases annually (incidence) is minimal, particularly in developed countries, by providing injury prevention, health care and other social planning. Traumatic spinal cord injury (TSCI) in developed (high income) and developing countries primarily affects males aged 18–32 years, and in developed countries, due to an ageing population, males and females over the age of 65 years (Lee et al., 2014). The overall epidemiology of spinal cord injury varies in different countries and the results of epidemiological studies from developed countries are not applicable to

developing countries (McCammon et al., 2011). According to recent study the incidence of SCI in developing countries is 25.5/million/year and ranges from 2.1 to 130.7/million/year. Males comprised 82.8% of all SCIs with a mean age of 32.4 years. The two leading causes of SCI were found to be motor vehicle crashes 41.4% and falls 34.9%. Complete SCIs were found to be more common than incomplete injuries (complete SCI: 56.5% and incomplete SCI: 43). Similarly, paraplegia was found to be more common than tetraplegia (paraplegia: 58.7% and tetraplegia: 40.6%) (Movaghar et al., 2013). Each year in the United states approximately 12500 new spinal cord injury occur (Ibrahim et al., 2016). As a developing country, Bangladesh is one of the most highly populated countries in the world and is situated in the South Asian subcontinent. In CRP, Bangladesh, 25-29 years aged peoples are most commonly affected among them males are more 83% than female and 92% came from rural area and 8% came from urban area also majority of the patients are paraplegia 56%, Cervical lesion present in 44% cases, thoracic lesion 27% and lumber lesion 29% (Islam et al., 2011). The persons with spinal cord injury (SCI) face major and maximum challenges on their occupational role, preferred lifestyle, expression of sexuality and in many other areas including psychosexual and family life.

Spinal cord injuries are basically defined as complete or incomplete according to the International Standards for the Neurological Classification of SCI and the American Spinal Injuries Association Impairment Scale (AIS). Complete lesions are defined as AIS A, and incomplete lesions are defined as AIS B, AIS C, AIS D or AIS E. This classification system was introduced in 1982 to replace the original, but perhaps more intuitive, Frankel system whereby a person was classified as having an incomplete SCI if they had any motor or sensory preservation more than three levels below the level of injury (Harvey, 2016). In contrast with “complete” or “incomplete” are based upon the sacral sparing definition. “Sacral Sparing” refers to the presence of sensory or motor function in the most caudal sacral segments as determined by the examination (i.e. preservation of light touch or pin prick sensation at the S4-5 dermatome, DAP or voluntary anal sphincter contraction).

To find out the level of injury the following ASIA Impairment Scale (AIS) designation is used in grading the degree of impairment:

A = Complete. No sensory or motor function is preserved in the sacral segments S4-S5.

B = Sensory incomplete. Sensory but not motor function is preserved below the neurological level and includes the sacral segments S4-S5, And no motor function is preserved more than three levels below the motor level on either side of the body.

C = Motor incomplete. Motor function is preserved below the neurological level, and more than half of key muscle functions below the single neurological level of injury have a muscle grade less than 3 (Grades 0–2).

D =Motor incomplete. Motor function is preserved below the neurological level, and at least half (half or more) of key muscle functions below the NLI have a muscle grade >3 .

E = Normal. If sensation and motor function as tested with the ISNCSCI are graded as normal in all segments, and the patient had prior deficits, then the AIS grade is E (Krishblum et al., 2011).

The impact of spinal cord injury (SCI) causes many deficits that often restrict the lives of the individuals as well as their contributions to society. The worldwide impact is dramatic. The many impairments resulting from the neurologic damage, not only limit physical function, but also influence an individuals' psychological well-being, social integration, financial status, and life aspirations, to varying degrees. Also its short and long-term management process presents a considerable cost to the individual and society, largely due to its life-long burden and ongoing medical and ancillary treatment. Ongoing problems and conditions like frequent hospitalization, pressure ulcers, autonomic dysreflexia, pulmonary health complications, spasticity, circulatory problems, bladder and bowel dysfunction, sexual problems, chronic pain, chronic fatigue, and psychological morbidity (such as depression and anxiety disorders), are known to challenge and diminish QOL in people with SCI (Guest et al., 2014). So the main goal of the rehabilitation of spinal cord injury patient is realization of the independent mobilization for both complete and incomplete patients & promote the assumption or resumption of

culturally and developmentally appropriate social roles after injury or illness. Three basic goals are 1. Rehabilitation should promote the full inclusion and participation of people with disabilities in the physical and psychosocial environment, 2. Participation in community activities correlates strongly with subjective quality of life and 3. However, most of what occurs in spinal cord injury (SCI) rehabilitation today is directed toward minimizing functional limitations (Scelza et al., 07). Specific interventions is done to maximize community participation of patients with spinal cord injury, where sexual issue is always ignored.

In acute stage principles of management of people of spinal cord injury (SCI) focuses on minimizing further neurological damage to the spinal cord and optimizing recovery. Stability of the spine is clearly a priority of treatment session. Physiotherapy is predominantly focused on the functional and vocational recovery of spinal cord injury people. During the rehabilitation phase main focuses on goals related to motor tasks such as walking, pushing a wheelchair, transferring and using the upper limbs. The setting of goals for a person with SCI is fraught with difficulties because it relies, at least in part, on physiotherapists' and patients' predictions of likely outcomes. Rehabilitation process involves a team and patient-centered approach. The overall aim of rehabilitation team is to enable the person to return to a productive and satisfying life. These assumptions suggest that an interdisciplinary approach to sexual health would be ideal.

Though people with SCI have passed a long time with this rehabilitation team. One effect of spinal cord injury sometimes overlooked is the impact on sexual lives of SCI survivors and their spouses. Patient with spinal cord injury affected by various psychosocial factors which impacts on their sexual -self and sexual expression. Different type of supports that instrumental (for example, tangible assistance), emotional (for example, exchange with a close friend) and informational (for example, advice from a peer). Main sources of social support can be family members, in particular the spouse, and friends and acquaintances, and others. Support by professionals is also included in some social support measures. Marriage is major source of support and wellbeing (Post & Leeuman, 2012).

Specially changes in physical appearance and dysfunction can affect self-consciousness and willingness to have physical contact which may impact on patient and partner's view

on their desirability. Resulting lack of sex within the relationship can cause guilt and further chronic stress that leads to depression. In the current situation the most important barriers are physical health problems and mental health problems which related to sexual health . Shortly after discharge, the most important barriers were emotional distress, problems with self-care, and mental health problems. The most frequently mentioned facilitators were preparation in the rehabilitation center with respect to daily activities and social activities and stimulation to be physically active (Vissers et al., 2008).

Spinal cord injury (SCI) usually gives rise to multiple comorbidities, not only affecting one's physical and physiological functions, but also causing detrimental psychological consequences and sexual dysfunction. In the other hand the extent of sexual dysfunction is influenced by the severity of the neurological lesion, the presence of bladder and bowel incontinence, pain and spasticity, as well as difficulties with interpersonal and social relationships including spouse life (Julia & Othman, 2011). Here also indicated that walking is not the most important function to recover in order to improve Quality of Life (QoL). Regaining bladder and bowel function, eliminating autonomic dysreflexia (AD), and improving arm/hand function are among the top priorities of individuals with SCI, all of which require more extensive research at the basic science and clinical level. And, driving the focus of the current study, regaining sexual function and sexual satisfaction is the combined number one or number two priority to a significant proportion of all individuals living with SCI, regardless of injury level (Anderson et al., 2007).

Systematic research towards Autonomic Standards for Neurologic Classification and Sexual Function Data Sets in SCI has started only around 20 years ago. To improve Quality of life sexual function is an important aspect of life and many persons with SCIs report restoration of sexual function would be more important to them than regaining the ability to ambulate (Onose et al., 2013).

Sexual education is often poorly integrated into the all over rehabilitation process though the change and anticipation of loss may severely threaten a person's self esteem and sense of value as a sexual being. Together, these significant losses can lead to physical and emotional isolation, placing the person at risk for social and psychological withdrawal and depression and anxiety (Hess & Hough, 2012). The sexual education in

rehabilitation of sexual function in patients with SCI is aimed at facilitating a form of sexual expression that is both acceptable and satisfying to the persons. Sexual satisfaction is not static, though, and holds great subjectivity, and may continue to evolve over time for all individuals. Given this type of evolution, continued opportunity for sexual counseling is needed even when the person have left the rehabilitation center and returned to their homes and to their partners (Lombardi et al., 2010).

Now a days life expectancy of spinal cord injured almost the same as in the able bodied person , if patient is correctly treated (Razzak et al., 2011). So it is important to note that for spinal cord injured people who are not involve with their partner in an intimate relationship at the time of the injury, opportunities for developing intimate relationships may be hampered by lack of peer acceptance in the community as well as lack of self-confidence. This inaccurate perception would be a cause of failure relationship.in a study found that 74% relationship difficulties occur after spinal cord injury due to lack of sexual health concerning (Korse et al., 2016). So a secure attachment to the physiotherapist could allow for discussion of sensitive issue such as changes in sexual functioning, role changes & psychosexual issue impact on partner (Dodd et al., 2015).

To achieve and maintain sexual health, sexual rights should be respected, protected & exercised to the fullest. Sexually assertive is important in facilitating communication and enhancing self-esteem, body awareness, and personal desirability in persons with SCI. Based on different research found that rehabilitation treatment approach consider some factors including give permission to patient to talk about sexuality both positive and negative, normalize patients about sexuality regarding their condition, provide information about impact, affect and ability of sexuality resulting from SCI and if it will necessary, than refer the patient to any psychologist or counselor. It is essential that the teams which treat the patient with SCI provide information about sexuality during rehabilitation (Villaverde et al., 2015).

As community health care professional, physiotherapists are also involved in health and fitness education and promoting wellness. Since sexual health is an integral and important component of overall wellness, and sexual activity a valued human activity, physiotherapists in various settings have an important role to play in promoting sexual

health and treating dysfunction (Rosenbaum, 2006). Most of Health care professionals (HCPs) have reported difficulty discussing sexual wellbeing in other situations (Khanal, 2013). In contrast, physiotherapist as a professional not generally include with this type of practice. Physical therapists are holistic practitioners, as they play a major role in the total rehabilitation of patients so they can focus and explore sexual rehabilitation. However, recently found in studies with physical therapist students identified that sexuality is an uncomfortable issue to discuss with patients and their partners (Sengupta & sakellariou, 2009). It has been proposed not only the staff training , also that the absence of attention to sexuality in the undergraduate curriculum of health care professionals could be a key factor in explaining why professionals feeling uncomfortable addressing this patient need(Booth et al., 2003).

Physiotherapists can also focus on motivation their patients to prepare to dill with sexual problem and also, to provide a solution in each particular case. Physiotherapy to sexual dysfunctions in sexual rehabilitation includes a combination of practical techniques, exercises, manual therapies, electrotherapy and different thermotherapies. The work of the physiotherapist in sexual rehabilitation consists of: interventions, such as psychotherapeutic diagnostic; educating and informing their patients; pelvic muscle training; vaginal weights training; electrical stimulation; biofeedback; thermotherapy, etc (Rochera, 2016).

Sexual health is included in such a holistic view and it is also related to feelings of well-being and general health. Despite the holistic intention of physiotherapy, there are areas, like sexual health, that receive insufficient attention by physiotherapist. In the recent study by physiotherapy professionals agreed that sexual health could be part of holistic care for patients, but there was a need for more knowledge and education concerning sexual health and communication about sexual health issues (Josefsson & Gard, 2015a).

In Bangladesh, there is no specialized and highly established government hospital for the treatment and rehabilitation of people with SCL. The only one non-government organization is the Centre for the Rehabilitation of the Paralysed (CRP), which has been working in this field for the last 30 years (Islam et al., 2011). In CRP patients care involves multi-disciplinary teams of doctors, nurses, physiotherapists, occupational

therapists, social workers and vocational trainers, all of whom are specially trained for spinal cord injury management. It is the only center of this kind in Bangladesh, which admits referred patients from all over the country (Hoque et al., 2012). Patients with spinal cord injury have spend a long time with this rehabilitation process. So, sexual rehabilitation should be recognized as a fundamental component of the overall rehabilitation program (Lombardi et al., 2010). Sexual information and counseling should be available both during initial rehabilitation and later when the patient have returned to their homes. By initiating the discussion of sexual life , the physiotherapists who deal the patients with spinal cord injury have the potential to detect sexual dysfunction and provide advice adequately when necessary. An awareness and understanding of the expanded conceptual model of sexual arousal, sexual role, position and response, elucidating the role of psychological and interpersonal circumstances on sexuality, may help these patients to recognize, appreciate and address the potential consequences of the SCI (Kreuter et al., 2008).

So in this study researcher used a qualitative approach to explore the views, knowledge, barriers and necessity of training of physiotherapist about discussing sexual wellbeing of patients with spinal cord injury at CRP, Savar, Dhaka and suggest improvements to information provision.

1.2 Rational of this study

Awareness about sexuality issues and spinal cord injury (SCI) generally has grown in the past 15 to 20 years and current literature supports the important role of sexual education as part of a person's overall rehabilitation. Among people with SCI , rehabilitation that successfully addresses sexuality issue must encompass arrange of factors including to physical functioning, body image and self esteem, social and family roles, community integration and participation (Kendall et al., 2003). And in CRP, rehabilitation team work is done with spinal cord injury patients very closely. Physiotherapy professionals play an important role in rehabilitation team. Through this study we can see existing of professional approach, necessity of sexual education to patients, knowledge, barriers and their needs of training about discussing of sexual wellbeing of patients with spinal cord injury

1.3 Research question

What are the approaches and barriers of physiotherapists to discuss about sex and sexuality to patients with spinal cord injury?

1.4 Study Objectives

1.4.1 General Objectives

To find out the knowledge, perception , barriers and training needs of physiotherapists about sexual rehabilitation of patients with SCI.

1.4.2 Specific Objectives of this Study

- To find out the type of advices usually provide by physiotherapists about the sexuality of spinal cord injured patients according their needs
- To know the importance of sexual education to patients.
- Try to identify about barriers and knowledge of physiotherapists about the sexuality of patients with spinal cord injury.
- To explore the necessity of training of physiotherapists about sexual education of spinal cord injured patients.

1.5 Operational Definition:

Spinal Cord Injury:

Traumatic spinal cord injury is defined as an acute injury of the spinal cord which results in a varying degree of paralysis and/or sensory disorder. Injury to the cauda equina is usually included in the definition, while other isolated injuries to nerve roots are excluded (Hagen, 2015).

Sexuality:

Sexuality guides natural desire to bond with others through love, affection, and intimacy.

Ways to express of sexuality:

- Emotional Connection: Feeling close to someone.

- Physical Contact: Act of touching, hugging, kissing, cuddling and sexual activity.
- Sexual Identity: Think and feel about own desire for opposite sex.
- Gender identity: Feel own 'inside'.

Impact of Spinal Cord Injury on Sexuality:

Loss of muscle movement, sense of touch, and sexual reflexes often occurs after spinal cord injury (SCI). How this loss effects arousal, orgasm, and fertility depends on level of injury and whether injury is complete or incomplete. Patients may not have a strong desire for sex when first injured, but desire will likely increase over time as patients learn to manage self-care and understand body after injury. SCI may also impact on thinking and feelings. Some people may not feel desirable after SCI. However, loss of movement or sensation does not change the facts that are a desirable sexual being. Patients are more likely to feel desirable and want to fully express sexuality if they understand their body and feel comfortable with themselves and personal identity (Alexander et al., 2015).

Sex Education:

Sex education is instruction on issues relating to human sexuality, including emotional relations and responsibilities, human sexual anatomy, sexual activity, sexual reproduction, age of consent, reproductive health, reproductive rights, safe sex, birth control and sexual abstinence.

Normal Control of Human Sexual Response:

Sexual stimulation of the human results in a series of psychological, neuronal, vascular, and local genital changes. Usually described a psychosexual response cycle that consists of four phases:

- Arousal: Body's response to desire to sex. People are usually aroused in two way
 - Reflex pathway &
 - Psychogenic pathway

- Plateau: Prior to orgasm
- Orgasm: Reflex to response to feel good and relax.
- Resolution: Refractory period.

Sexual Response After Spinal Cord Injury:

Most of the people with SCI can be aroused by sensual touching and psychological sexual sensation. And people with SCI can still have orgasm. Women become pregnant and some men can get their partners pregnant through sexual intercourse (Alexander et al., 2015).

Sexual rehabilitation

Sexual rehabilitation of patients with SCI should be start from initial recovery and extending to short and long term follow up session.

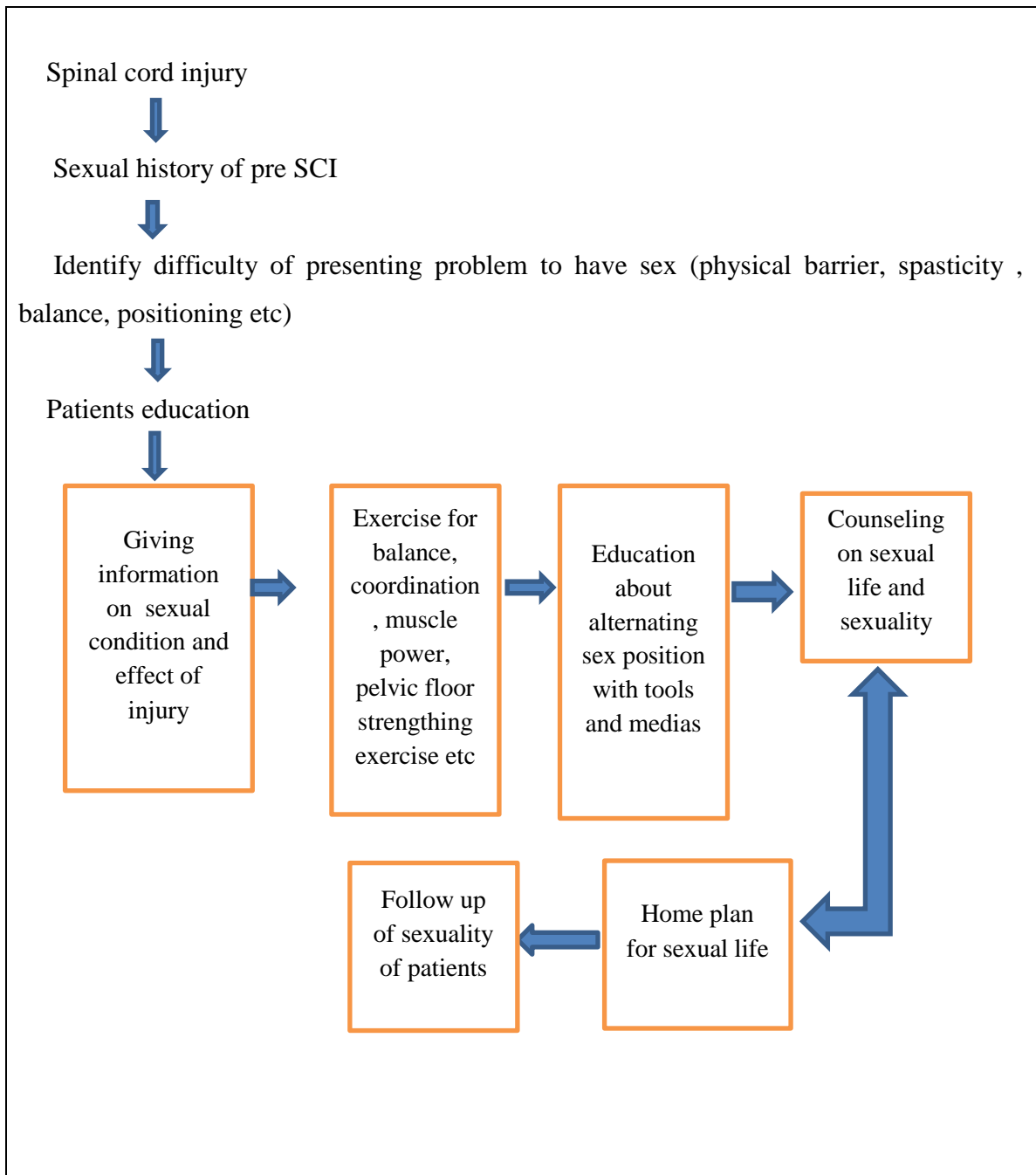


Figure 1: Sexual rehabilitation for spinal cord injury patients.

Sexuality a decisive aspect of human life is inimitable to each individual and continues to progress throughout one's life indeed. The World Health Organization defines sexuality as "A central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy, and reproduction" (WHO, 2006). From this aspect following the spinal cord injuries (SCI), sexual function is vigorously affected and the goal for such individuals, as for all people, is to have a gratifying and productive life (Khanal, 2013).

In human life sexuality constitute a fundamental part, integrating physical, emotional, intellectual and social aspects. After spinal cord injury patients pass a immobile life. So long-term disability can have a profound impact on a woman's innate sense of sexuality, sexual function and, occasionally, fertility. Various myths about sexuality and disability in society, such as 'disabled are asexual, only independently functioning person can handle a sexual relationship, disabled person cannot be father or mother, disabled person who are single are celibate', results in the sexual well-being of disabled are being neglected. In previous study found that, all SCI patients wanted to receive information about sexual life , fertility and sexuality (Celik et al., 2014).

As like Sexuality is an integral part of being human. So Sexual well-being of SCI people is regarded as a health care concern, which is highlighted in the International Classification of Functioning, Disability and Health (ICF) and is referred to in the United Kingdom Department of Health publication Choosing Health: A White Paper. Because of that the issue is increasingly being considered as an integral component of the total well-being and prosper life of an individual, it is important that health care professionals including physiotherapist address it. Addressing with clients' and their partner's requirement about sexuality education will conduct in multidisciplinary team approach and is not only the responsibility of a single medical professional also important for physiotherapist (Sengupta & Sakellariou, 2009).

Spinal cord injury is life altering event for individual. The main and major determinants of sexual functioning associate with the level and completeness of spinal cord injury. Usually in the immediate post-injury period, both men and women lose ability to have reflexive sexual responses. If once reflexes return, reflexive arousal in men and women (erection in men and vaginal lubrication in women) can be achieved with genital stimulation if the sacral spinal segments and peripheral pathway conveying sensations (cauda equina) are intact. However, these reflexive responses are usually short lived, limited to the duration of stimulation, and often do not achieve a fully satisfactory response. If the injury is caudal to the 12th thoracic cord segment men and women can be expected to experience psychogenic arousal in response to visual, auditory, imaginative, tactile, and gustatory stimuli. Even in the absence of physical manifestations of arousal, individuals with spinal cord injury describe subjective arousal similar to non-injured controls and for men ability to erection is more preserved than ejaculation (Hess & Hough , 2012).

During the initial phase of rehabilitation program following a spinal cord injury, it is mostly expected for individuals to be strongly focused on physical recovery and rehabilitation. There are two main models in rehabilitation teamwork – the multidisciplinary and the interdisciplinary approach. In both of these models, different professionals work usually toward a common goal. However, in the multidisciplinary model each member of the team conducts assessment and treatment individually and communicates with one person – the team leader; the approach results in the sum of each profession providing its own unique activity and contribution. The interdisciplinary model emphasizes the joint problem formulation and solution, there is frequent mutual consultation about active life, movements & vocational training, which creates a unified viewpoint of the patient and his or her family (Elder et al., 2008). But sexuality after SCI is a topic rarely mentioned in rehabilitation and follow up in less resourced countries, presumably because of cultural taboos. In the current study, the married couples reported continuing sexual relations, similar to 61%. The other study reported most desired more sexual education during rehabilitation and half expressed dissatisfaction with their sex life .Cordial partner relations were found to be correlated with improved QOL after SCI in another Indian study. In the past few years, GPHRC staff has provided sexual

education about changes in sexual function after SCI. At the home visit, spinal cord injured patients and spouses recalled having education about sexuality, and 80% found it to be helpful (Scovil et al., 2012).

However, impending to stipulations with sexuality, is a key step towards making a healthy adjustment. Sex life is the module that identifies human being as male or female thus expressing sexuality is a fundamental part of human being. Anatomical and physiological sexual deficits of SCI-induced are fairly well understood. Certain aspects of SCI-associated sexual impairments have been studied extensively worldwide. In fact there is no specific time after the injury that is most appropriate for initiating sexual counseling. As one is still trying to accept their disability, physical recovery is thus a priority in the initial stage. It was felt that the appropriate time for sexual counseling was after discharge, between 6 months and at 2 years after the injury when they are then aware and have to deal with their sexual problems. Thus, initial counseling should include an understanding of the consequences of a SCI and its effects on sexual functioning and reproductively. Subsequently, after engaging in sexual activity, solutions to their sexual-related problems are warranted for those who face obstacles including lack of knowledge about sexual education. Therefore, physiotherapists as healthcare professionals need to consider sexual rehabilitation in dealing with disabilities, specially such as SCI (Julia & Othman, 2011).

Usually when people have experienced a spinal cord injury (SCI), there are usually many other questions that come up in their mind as like:

- Does my SCI affect my sexual function?
- What kind of physical changes can I expect?
- Will I have orgasms?
- Will I be able to satisfy my partner?
- Will I be able to get satisfaction?
- Will I be able to have a have a child with my partner? (Sunilkumar et al., 2015).

In rehabilitation goal setting at the acute stage, individuals with spinal cord injury are taught compensatory techniques to overcome physical limitations in order to maintain or maximize function. However, the person may receive much less information on the sexual implications of their injury and even less on related compensatory strategies. Studies have shown that there is a large void in addressing sexual rehabilitation despite continued acknowledged need for education, training and counseling. Even though sexual education should be available in the acute rehabilitation period, the information should also be tailored to the individual's particular needs as they process the ramifications of their injury. Physiotherapists must have an understanding of the physical and psychological aspects of sexuality and function in order to provide the best services possible to clients. An essential step in the process of service provision is understanding one's own values and beliefs regarding sexuality. Being open-minded and non-judgmental of both the professional's and the client's sexual behaviors aides in building rapport for an effective professional relationship. Discussing sexual concerns with a client is every professional's responsibility when providing health care services aimed at the whole person (Esmail et al., 2010).

In previous study both men and women reported that they had a significant decrease in sexual desire and frequency of sexual activity after SCI. In men, the most common factors are erectile dysfunction and impaired ejaculation and in women, the most common factors are pain with intercourse and inability to reach orgasm. Although patients and physiotherapist as health care professionals have identified sexuality and reproductive health as important aspects of SCI rehabilitation but gaps exist in knowledge, in the clinical skills necessary for the assessment of a patient's sexual health, and in providing education on sexual health during the rehabilitation process (Ricciadi et al., 2016).

Another important point with regard to the difficulties presented after SCI concerns the immobility and its consequences positions, imbalance & physical dysfunction. So the changes in mobility may impose limits on sexual activity, due to the decreased capacity of balance and movement of the pelvis during intercourse. Furthermore, if the patient presents muscle tone changes with sudden spasms, positioning for sexual activity may be

impaired. Another point to consider is the skin care during intercourse to prevent injuries. There are several alternatives to handle sexual dysfunction, depending on the level and extent of injury and the difficulty experienced by the couple. The partner's participation is crucial in the discovery and, if necessary, need education and counseling process. The beginning of the healthy sexual adjustment after SCI, besides adapting the altered physical body, must be linked to the view the patient has on themselves, their sexual self-concept, and what they consider a normal and acceptable behavior in their search for sexual satisfaction, because the psychological, social, and cultural barriers and norms may be as significant as the physical ones. In the speeches, we evidenced as forms of adaptation, is the change of position for sexual intercourse (Torriani et al., 2014).

But during rehabilitation program, the physiotherapists can play a vital role through counseling and training to patients and partner about their sexual condition and how they perform safe sex by video, book late , dummy and others procedure . The exploration of new positions, identification of new erogenous zones, and communication between partners are essential for a satisfying sex life. If positing and balanced training is given to patients and their partners, it will be make satisfy them. The knowledge and conception about sexuality, pleasure and sex should be consider in physiotherapy rehabilitation planning.

Previous study showed that most women continue to be sexually active after their injury and that they consider sex to still be an important part of their lives. Also fertility is not affected for both men & women after spinal cord injury. Most of the time, men with a SCI are able to maintain an erection only when the penis is stimulated and the rigidity of the erection is insufficient for sexual intercourse. As such case, the erection can be augmented with devices (Penile Vacuum Devices), medications (Sildenafil or Viagra), through injection therapy (Nitracavernosal Injection Therapy, Transurethral Therapy) or a penile implant if the patient wish to engage in sexual intercourse (Leonard, 2010). Women with spinal cord injuries are able to become pregnant but depending on the injury, there may be additional tribulations such as increased difficulty in transferring. A need for more specific services, information, guidance, and guidelines for health professionals caring for woman with SCI during pregnancy and childbirth was identified.

Therefore, healthcare for pregnant women with SCI is unique and requires special medical attention (Bertschy et al., 2016).

Now a days frequency of discussing about sexuality of patient with spinal injury increase day by day. From recent study found that the barriers to discuss about sexual health is related to lack of training and knowledge's , confused about responsibility and lack of time of professional. Regarding the right time to counsel about sexual health with spinal cord injured patients was earlier found to be 6 months after inpatient rehabilitation . Counseling on sexual health in the curriculum was proposed and by this time physiotherapists are eager to enhance their knowledge with current and upgrade knowledge and training (Korse et al., 2016)

Sex and sexuality issues are very sensitive in our socio cultural aspect. Person with SCI need proper guidance about their sexual live during rehabilitation time .Physiotherapists concentration is much more needed on this issue in order to improve quality of life .There are a small number of related studies and resources available about sexuality in a Bangladeshi context. However large numbers of international studies have been done on this topic until now, Bangladesh is behind in addressing personal matters like sexuality in comparison to other countries. According to our customs and norms ,discussing about sex is such a topic that is often felt shy and avoided by patients and as well as by physiotherapist. Sometimes It seems to discuss about such a sensible and private topic requires a familiar, knowledgeable & well trained person (Khanal, 2013).

A Physiotherapist is an essential part of a rehabilitation team. Therapist can raise awareness among people with a SCI about their present situation and educate them how to perform safe sexual acts. Physiotherapists can play the role of a counselor to deal with anxiety, depression and fear. SCI is such type of condition where people face problems in sexual acts after the injury. Physiotherapy should promote sexual health by working with SCI patients in their professional role in a sexuality affirming way. Physiotherapists can play different types of roles in sexuality includes:

- Addressing sexual issues as an activity of daily living.

- Information regarding changes in sexual life after SCI and general information about healthy sexual life.
- Counseling on fear regarding a healthy sexual life.
- Identification of problems on the basis of different performance in domains of motor, psychological, sensory and cognitive.
- Identification of client's limitations and abilities in sexual activity.
- Provide appropriate training to client and client's partner about ADLs,
- Safety education, psychological and home plan for sexual life (Song et al., 2011).

From others literature found that treatment of sexual health concerns by physiotherapy interventions present in many areas of rehabilitation. Such as, Pelvic floor exercises have a positive effect on anxiety and depression, which can indirectly affect sexual health in a positive way. By providing advice physiotherapists can also increase the choice of possible positions for sexual intercourse by increasing joint mobility and muscle strength, and patients' knowledge of their own physical abilities. Different exercise positions that are involved in physiotherapy programs may inspire patients to try different positions during sexual activities and encourage sexual fantasies. There are different levels of strain on joints and muscles in various coital positions, and it is of value for physiotherapists to be able to answer questions about how joints and muscles are affected during sexual activity (Joseffson & Gard, 2015b) . Another study said pain is decreased by physiotherapy, and since pain is one of the dominating factors that decrease sexual health, physiotherapy must be highlighted as an important way to improve sexual health for patients with Rheumatoid Arthritis (RA). Muscle strength exercise is common treatment for patients with RA which reduce fatigue for patients and these increase physical activities along with sexual relationship (Joseffson & Gard, 2010;2015)

For gaining the basic knowledge of sexuality with spinal cord injury patients, inclusion of this subject in education and also training of physiotherapy professionals can contribute to integrate this important issue as a routine aspect of practice. Education and training may prompt physical therapist and students to no longer assume that patients do not want to talk about sexuality, which would further lower their level of embarrassment in addressing the issue with their clients. Lower educational attainment and direct sexual

rehabilitation education had a great impact on sexual satisfaction of patients with spinal cord injury. Education and counseling for sexuality are often poorly incorporated into the rehabilitation process. Therefore, based on the present findings, rehabilitation physiotherapists and faculties need to integrate person-to-person tailored sexual education and sexual counseling services as part of a comprehensive rehabilitation program, in consideration of the individuals' academic background (Choi et al., 2015).

For this addition, perhaps the development of new graduates who are well equipped to discuss sexuality would enable the issue to be addressed in clinical settings more frequently. Sexuality is an important issue that needs to be highlighted, and if physical therapists truly want to deliver holistic care, then they surely need to address their spinal cord injury clients' and their spouses' sexual education.

It is relatively new and embarrassing area of inquiry for those dealing with SCI patients and for physiotherapists, is still now associated with a certain level of discomfort. Sexuality and sexual health should be addressed in a planned, lenient manner while the patient is gone through a rehabilitation process and during life-long follow-up with ethical consideration and care (Josefsson & Gard, 2015a). So that, by providing training and education about sexual rehabilitation about spinal cord injured patients to physiotherapist & also in under graduation, hope they may aid a valuable contribution in rehabilitation with discuss about sexual wellbeing with patients according to patient's need.

3.1. Study design

Qualitative method was chosen to conduct this study. The phenomenological qualitative study design was selected because this method helps to explore the in depth information on the perception of the participants. For this reason researcher was selected qualitative research design to identify participant views, perceptions and experiences to discuss about sexual wellbeing of patients with spinal cord injury.

In this study researcher found this approach appropriate because each of the participants have an own point of view on their experience as a physiotherapist to provide sexual education to patients with SCI. The participants were able to express a detailed view and their own thoughts, attitudes and perception regarding the training needs on sexual rehabilitation for patients. This approach of qualitative method helped to show the participants actual response of their practical experience which lastly formed the theme of the study by the interpretation and judgment of the collected data.

3.2 Study site

Centre for the Rehabilitation of the Paralyzed (CRP), Savar, were chosen for this study. These area were selected because of most of the physiotherapy professionals work in this CRP. It is one of the specialized hospital for spinal cord injured patients.

3.3 Study area

The study was conducted on the Spinal Cord Injury unit.

3.4 Study population & sample

Physiotherapy professionals who work with the patients with spinal cord injury at CRP SCI inpatient unit.

3.4.1 Inclusion Criteria

- Physiotherapist who have the Degree of BSc in Physiotherapy.
- Working experience for minimum two years.
- Both male and female physiotherapists.
- Physiotherapists who must work with SCI patients.

3.4.2 Exclusion Criteria

- Intern physiotherapists, Assistant physiotherapist, Diploma physiotherapists were excluded.
- Working experience for below two years were excluded.
- Physiotherapists who did not work with patients with SCI.

3.5 Sample size

The sample size used in qualitative research methods is often smaller than that used in quantitative research methods. So researcher choose six participants for this study.

3.6 Sampling technique

The researcher was interested to obtain perception of the participants. The study was a qualitative type of study. The researcher was interested to obtain a complete understanding of the incident by analyzing a range of participants experiences. Subjects were collected by using purposive sampling from the population who met the all inclusion criterions.

3.7 Method of data collection

Face to Face interview by the researcher were held by providing an open-ended type BENGALI questionnaire form.

3.7.1 Data collection tools

Researcher used tools for the study. That's are

- Informed consent form
- Tape recorder
- Questionnaire
- Pen

3.7.2 Questionnaire

For data collection an open-ended questionnaire were used to find out the perception of physiotherapists. Which includes personal information question in part-1 and mixed questions in part-2 to find out the perception of physiotherapy professional about sexual education for spinal cord injured patients.

3.7.3 Duration of data collection

During the time of data collection each data was collected carefully and confidentiality was maintained. Each participant provided particular time to collect data. Each questionnaire took approximately 10-15 minutes to complete.

3.7.4 Procedure of data collection

Data was collected by the researcher himself. The questionnaire form were completed or filled up in front of the researcher.

3.8 Data analysis procedure

The purpose of the data analysis was to find out the actual meaning of the information that was collected from interview of participants. By using a data analysis process it was easy to arrange and present information in order to search for ideas. Researcher began to analysis of the data with transcription of the interviews. Research interview was conducted by face to face oral interview and researcher recorded all conversation in recorder. So through the data analysis researcher transcribed the entire interview in Bangla in papers. Researcher observed the relevant issues related to the study and noted it down. Researcher also listened to the audio tape for several times to ensure the validity of data. After the Bengali transcription was formulated, researcher transformed the data into English. All data were transformed separately.

Then data was coded into short form and categories as dictated by the research question. During initial of thematic result, the researcher identified the major codings from each interview. The second stage involved identifying information units. All information units were categorized and turn into different themes in relation to the professional view and approach on discussing about sexual wellbeing of patients with spinal cord injury. Finally researcher made some themes from the analyzed data which depend on the interview of participants.

3.9 Rigor of study

Researcher always tried not to be influenced the whole research process by his own values and biases . All of the steps in the research process were supervised by an experienced supervisor. During the interview the researcher always asked open-ended questions, no leading questions were asked and researcher did not interrupt the participants during answering the questions. Data was recorded carefully and researcher accepted the answers of the participants whether negative or positive without giving them any impression. The researcher prepared the transcript from the audio recording. Researcher checked the translated data several times, so that no information was missed and avoided. Notes were handled with confidentiality. In the result section, the researcher did not influence the outcome by showing any personal interpretation.

3.10 Ethical consideration

This protocol presentation was submitted to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI) and took approval from the ethical committee of Physiotherapy department to do the study. This study was follow the Bangladesh medical research council (BMRC) guide line & WHO research guide line. Researcher was maintain the confidentiality of the collected data from the individuals. All the participants and the authority were informed about the purpose of the study. Researcher ensures the confidentiality of participants and share the information only with research supervisor. All the information was explained clearly about the study and verbally informed to the participants. The interview notes and recording words was not be shared or discussed with others. The role of the participants in this study was explained first to the participants. A written consent form was received from every participants including signature. So the participant assured that they could understand about the consent form and their participation was on voluntary basis. The participants were informed clearly that their information would be kept confidential and assured the participants that the study would not be harmful for them. It was explained that there might not a direct benefit from the study for the participants but in the future cases like them might got benefit from it. The participants have the right to withdraw consent and discontinue participation at any time.

Researcher conducted an open interview of 6 participants through an open-ended questioner. All of participants gave their opinion about discussing sexual wellbeing of patients with spinal cord injury. Researcher tried best to find out main and major points from interview.

Researcher asked to the participants 7 questions with including 5 sub questions. So researcher determined categorized and coded all data to find out the result . Coding were selected on the basis of participant's views and opinions by which the theme was selected. The findings were described by using the table and also highlighted their interview is a coding basis. All codings are showed with tables

.4.1 At A Glance Socio-demographic Profile Of Participants

Participants No	Age (year)	Sex	Designation	Working Experience	Working Institute
P1	37	M	SCPT	14Years	CRP
P2	29	F	CPT	6Years	CRP
P3	30	F	CPT	8Years	CRP
P4	29	M	CPT	2.5Years	CRP
P5	30	F	CPT	6.8Years	CRP
P6	35	F	SCPT	10Years	CRP

Table -1: Socio-demographic information of participants

SCPT- Senior Clinical Physiotherapist

CPT- Clinical Physiotherapist

M - Male, F- Female

4.2 Summary of Data Analysis and Result :

Objectives	Questions No	Categories	Themes
1 To find out the type of advices usually provided by physiotherapists about the sexuality of spinal cord injured patients according theirs needs	1, 2, 3	<u>Category 1 (a):</u> Advice provided by physiotherapists according to patient's questions about sexuality of patients with SCI.	<u>Theme 1-</u> Sexual education to patients is yet to prioritize by health care professional including physiotherapists.
		<u>Category 1 (b):</u> Use of tools and medias to discuss sexual wellbeing of patients with SCI.	
2 To know the importance of sexual education to patients	4	<u>Category 2:</u> Necessity of sexual education to patients with SCI.	<u>Theme 2:-</u> Sexual rehabilitation should be included as an essential part in SCI rehabilitation to ensure better life for patients.
3 Try to identify about barriers and knowledge of physiotherapists about the sexuality of patients with spinal cord injury.	5,6	<u>Category 3:</u> Barriers and knowledge to discuss about sexual wellbeing of patients with spinal cord injury.	<u>Theme 3-</u> Privacy and proper environment is needed to establish sexual rehabilitation. <u>Theme 4:-</u> Sex and sexuality education for patients should be placed in formal university curriculum.
4 To explore the necessity of	7	<u>Category 5:</u> Training on sexual education of	<u>Theme 5:-</u> Update staff training on sexual

training of physiotherapists about sexual education of spinal cord injured patients.		patients with SCI for physiotherapists.	education will ensure comprehensive rehabilitation that could improve service.
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Table - 2: Summary of result

Researcher described all categories . Coding are shown into tables. The tick has given only for those columns where the participants expressed their opinion. Here, “P” indicates the participant. The subscript number 1, 2, 3... 6 used to mention the number of participants.

4.2.1 Category 1 (a): Advice provided by physiotherapists according to patient’s questions about sexuality of patients with SCI.

Coding	P1	P2	P3	P4	P5	P6
Patients want to know about future sexual life	✓	✓	✓	✓	✓	✓
Fertility and pregnancy	✓		✓	✓	✓	✓
How they will do sex	✓	✓			✓	
Can give proper answer						
Can not give proper answer	✓	✓	✓	✓	✓	✓
Give advices from experience	✓		✓			✓
Mental support			✓	✓	✓	
Refer to counselor	✓	✓	✓			✓

Table - 3: Questions of patients and answers of physiotherapists.

All of the participants shared expressed their views in interview session. They told about their experience, how they usually handle the patients with SCI according to their requirements about their sex life.

One of the participant said that, “ Yes, patients usually ask question about their sexual life. They want to about their future condition, would they become father or mother and they want to know alternative way to sex. But it is true I can not provide proper and full advice. I have no theoretical knowledge about it. Tell some about it from my experience. Usually I refer the patients to counselor .”

Other participant said that, “ Yes, most of the patients both male and female and both married and un married also want to know about it. They ask could they continue their sex life and how they do sex. I can give very few advice to patients about sexual wellbeing such as positioning to sex. Counseling is main treatment procedure till now.”

Another participant reported that, “ All of the patient want to know about their sexual power, future condition and they ask would they become father or pregnant in future etc. Basically I give them mental support and some advice about their sexual power and how they sex from my experiences. Really I do not have correct information about this topic. Most of the time I refer them to counselor. ”

Other participant mentioned that, “ Most of the patients are worried about their future sexual life. They want to know about their pregnancy or would they become father. I do not give any negative answer. But can not provide complete answer and proper guide. I am not clear about sexuality of patients with SCI. Usually give psychological support them to be strong mentally.”

Another participant said that, “ Yes , usually all patients both complete and incomplete want to know about their sexual life , what would be happen in future, about pregnancy and how they become father etc. I tell them very few about their sexual life from my experiences about some positioning. And tell to female patients that they can become mother with in precaution and safety. But I do not have clear idea. So I usually refer them to counselor.”

All of the physiotherapists said that most of the patients ask question about their sex life. They want to know about their future sexual condition and they want to know about their pregnancy and fertility. Also ask about sex positions . They usually ask different type of questions about sexual and reproductive consequence . And the questions are:

- What would be happen in future life?
- Would they continue sexual activities and how?
- Would they become father or mother?
- How they will satisfy their partners?

According to patients questions all of the physiotherapists said they do not provide proper and correct answer to them about sexuality of spinal cord injured patients. Few of them said they try to give advice from their experiences. And few of them give mental support to patients. Majority of physiotherapists refer the patients to counselor.

4.2.2 Category 1 (b): Use of tools and medias to discuss about sexual wellbeing of patients with SCI.

Coding	P1	P2	P3	P4	P5	P6
Use booklets						
Use pictures						
Use videos						
Oral advice		✓	✓	✓	✓	
Group discussion	✓					✓
Want to use tools & medias	✓		✓		✓	✓

Table - 4: Use of tools and medias

All of the participants expressed their opinion about use of tools and media to discuss about sexual life of patients in interview session.

One of the participant said that, “ Usually we do group discussion. We cannot give direct answer about sexuality. So do not use tools. If I have books about it , it will be helpful for me.”

Other participant said that, “ I give my answer orally. I do not use any tool or media to discuss about sexuality of patients.”

Another participant reported that, “ I usually give oral advice. I have no tool to give treatment. But if we can show any picture or any demo , it would be beneficial for both patients and partners.”

Other participant said that, “ Till now I do not use any tool or media. I generally give oral advice to patients.”

Other participant reported that, “ No , I do not use tool or media to give advice to patients about sexual activities. I have desire to use pictures to give better treatment.”

Another participant mentioned that, “ I have no tool or media to discuss about sexuality. But booklets, videos or demos can be helpful to provide better advice.”

All of the physiotherapist said that they do not use any kind of tools and medias. And they are not concern about the use of tools and medias. Verbal counseling and group discussion are their main ways to provide advice to patients with spinal cord injury about sexual life. Most of them provide oral advice. Fewer of them said they usually refer them to group discussion. Most of the physiotherapists want to use different type of tools and medias which can help them to provide more than better advice during rehabilitation of patients with spinal cord injury.

THEME -1: Sexual education to patients is yet to prioritize by health care professional including physiotherapists.

Subtheme:

- Physiotherapists advice them from their experiences.
- Physiotherapists do not provide proper and clear advice to patients about sexuality of patients .

- Refer the patients to counselor.
- Tools and medias are unavailable to discuss sexual wellbeing of patients.
- Verbal counseling and group discussion is used most of the time.
- Want to use tools and medias.

4.2.3. Category 2: Necessity of sexual education to patients with SCI.

Coding	P1	P2	P3	P4	P5	P6
Improve life style	✓	✓		✓	✓	✓
Knows about alternative ways to sex	✓	✓	✓	✓	✓	✓
Reliable to partner	✓		✓	✓		
Minimize family complication	✓		✓		✓	✓
Minimize depression		✓	✓		✓	✓

Table - 5: Necessity of sexual education

Physiotherapists told about the importance and necessity of sexual education to patients with spinal cord injury from their views. They told why it is important to patients.

One participant said that, “ Sexual education is most important for the patients with spinal cord injury to improve their quality of life by reducing complications of life. Sexuality is important part for life. Also important for spinal cord injured patients. If they know about different alternative ways to continue ex life , they can be reliable to partners.”

Other participant said that, “ Spinal cord injury mostly affect on sexuality of person. To continue their family life and to lead a better sex life , sexual education is must for the patients. This injury creates many complications in life. Sexual education will be helpful to reduce anxiety and depression of life with spinal cord injured patients.”

Another participant reported that, “ Of course sexual education is important. It will be beneficial for the patients and also for partners. Sexual education during rehabilitation

can help to minimize complications and depression of life. If the patients can continue their sex life , their partners will be happy and make them faithful to partners.”

Other participant also said that, “ Sexual education is most important for spinal cord injured patients. If the patients take their condition positively, it will be helpful for their future life. If they know about different sex positions, they will be confident and reliable to their partners.”

Another participant reported that, “ Sexual education can abolish depression of patients and also reduce marital life complications. Learning about different positions to do sex can make them happy in life.”

Other participant mentioned that, “ During rehabilitation sexual education to patients with spinal cord injury is necessary. This education provide mental support with reduce depression and minimize family complications. Education about different positions to do sex will be helpful for patients both physically and mentally to improve a standard life style.”

All of the physiotherapists agreed with that sexual education to patients with spinal cord injury is most important in present day. Sexuality is normal fact for human life and also for patients with SCI. Majority of physiotherapists said that sexual education can improve life style of patients with SCI. Some of them told that sexual education can minimize family problems and help to continue better conjugation life. Also some of them told that sexual education to patients can reduce depression. And all of the physiotherapists noticed that education about alternative ways to do sex will be make the patients confident and reliable to their partners.

Better understanding of sexuality of patients with spinal cord injury influences the life style and improve standard of life. Also help to minimize the complication of life. Spinal cord injured patients both men and women face a lots of difficulties in their conjugation life and family life, which are made them depressed and puzzled. And depression as a psychological factor, intimacy with partner in sexual acts and self esteem are closely related to satisfaction of life. To get rid of these problem and complications , sexual education is beneficial for patients .

THEME -2: Sexual rehabilitation should be included as an essential part in SCI rehabilitation to ensure better life for patients.

Subtheme:

- Improve quality of life of patients with SCI.
- Sexual education about alternative way to sex.
- Reliable and better relationship with partner.
- Reduce depression and complication of life.

4.2.4. Category 3: Barriers and knowledge to discuss about sexual wellbeing of patients with spinal cord injury.

Coding	P1	P2	P3	P4	P5	P6
Feel discomfort		✓	✓	✓		✓
Do not feel discomfort	✓				✓	
Gender issue		✓	✓	✓	✓	
Need privacy		✓	✓	✓		✓
Lack of knowledge	✓	✓	✓	✓	✓	✓
Avoid it	✓					✓
Need to open discussion	✓	✓		✓		
Education in undergraduate program	✓	✓	✓			✓

Table - 6: Barriers and knowledge to discuss sexuality

All participants shared their barriers and knowledge about sexuality to discuss with the patients with SCI. Frequently said about their lack of knowledge and internal structure of rehabilitation which is not suitable to discuss about sex life of patients.

One of the participants said that, “ Usually I do not feel barrier or discomfort. I try to give my best. But I have no enough knowledge about sexuality of patients with spinal cord injury. For this sometimes overlapped this topic. So I think we need to discuss it openly

and frequently. As a professional we need more and more practice about it. Study in undergraduate program about sexual rehabilitation can help in our practice.”

Other participant said that, “ In our country it is not easy to talk about sex. Gender issue between patients and physiotherapists is main and major problem to discuss it. We can not talk frequently and we badly in need of separate rooms to discuss this issue. Also I have no theoretical knowledge about sexuality of patients with spinal cord injury. Open discussion and addition of this topic about sexuality of patients in our BSc curriculum can be helpful for upcoming professionals.”

Another participant mentioned that, “ Shyness and less knowledge are barriers. Female patients want to talk with female physiotherapists , male patients also want to talk with male physiotherapists. So we want privacy to explore this issue. As a physiotherapist I have lack of update and proper knowledge about sexuality of patients with spinal cord injury. So I need to know this by training or workshops etc. But students also have right to know about this issue, if they are able to know ,they can provide their best service.”

Other participant also said that, “ In our social aspect it is difficult to talk about sex. It is like taboo in our country. separate room and privacy also important for this. And also our level of knowledge is poor. Training about how to give sexual education to patients obviously can help the professionals.”

Another of participants reported that, “ Generally I do not feel uneasy or discomfort to discuss with patients about their sexuality. But I have very few knowledge about this topic. Training on this issue and gaining update knowledge will be helpful for physiotherapy professionals.”

Other participant said that, “ In our country to discuss about sexuality is hard. Most of us feel discomfort. Female patients feel shyness to discuss it with male physiotherapists. If we arrange separate class for this issue for both male and female , it will be very help ful. And male patients do not ask to female physiotherapists about their sexual condition. We have little knowledge about this topic. We need training on this topic to upgrade our practice. . And if we teach the students about this topic, it would be very positive to our profession.”

Most of the physiotherapists said they feel discomfort to discuss about sexual wellbeing to patients with SCI. All of them said that lack of knowledge and few of them said gender issue are major barrier to discuss sexual wellbeing of patients. And very few of physiotherapist said sometimes they avoid this topic. But the physiotherapists said that they want separate rooms for discussing this issue according to demand of patients and some of them told to discuss this topic openly for further better practice . They want authority should arrange sexual rehabilitation for both male and female separately. Having update knowledge, correct information and proper training about sex and sexuality of patients with spinal cord injury are most important factors to provide better advice during rehabilitation. Participant mentioned that sometimes, they face troubles and embarrassing situation for the lack of knowledge about sexuality of patients with SCI. Some of participants had searched for information on their own due to interest in this field. But it is not enough for them and also for patients. The informants described they are unsure of how to deal the patients with spinal cord injury to provide sexual education. They considered increase knowledge and training with in this field able to work with confident in a professional way. Addressing this topic in under graduate program will be helpful for the upcoming professionals. Participant said that they are expected the students will feel more comfortable with this issues if they perceived as adequately covered in their course about sexuality of patients with spinal cord injury.

THEME- 3: Privacy and proper environment is needed to establish sexual rehabilitation.

Subtheme:

- Gender issue between patients and physiotherapists are major barriers.
- Need to open discussion and more practice.
- Need separate room for both male and female patients.

THEME – 4: Sex and sexuality education for patients should be placed in formal university curriculum.

- Lack of update knowledge is barrier to discuss.
- Major gape in course curriculum.

- Sexual rehabilitation class should start in SCI placement.

4.2.5 Category 5: Type of training provided to physiotherapists on sexual education of patients with SCI.

Coding	P1	P2	P3	P4	P5	P6
Update knowledge about sexuality	✓	✓		✓	✓	
Module and booklets for physiotherapists	✓	✓	✓			
Relation between injury level and sexuality			✓	✓	✓	✓
Training on alternative way to sex for patients	✓	✓	✓	✓	✓	✓
Need staff train	✓	✓	✓	✓	✓	✓

Table -7: Necessity of training for physiotherapists

All of the participants gave their self-opinion about necessity of training for physiotherapists. All of them emphasized on the importance of staff training about sexual wellbeing of patients.

One of the participant said that, “ It is important to train up of all physiotherapists who are working with spinal cord injured patients. Train up with booklets or other techniques which related to sexuality of patients and help to know alternative ways to sex to professionals. Update knowledge and proper practice about it is necessary. Staff training on this issue can help our profession.”

Another participant mentioned that, “ If we get training about sexual condition of patients and also have some books or modules about this topic specially on positioning to sex , it will be helpful for us. Training on this topic by specialist is needed for professionals to provide best treatment.”

Other participant said that, “ As a physiotherapist I need proper training on sexual education for patients. If our authority arrange any training , it will be beneficial . Having module on sexual education including different techniques to continue sex, will be helpful. Level of injury is an important fact. So we want to know about the relation between level of injury and sexuality. We need to train up about sex and sexuality of patients with SCI. Short course could be arrange by authority.”

Another participant mentioned that, “ Till now we have no clear and proper idea about the relation of injury to sexual activities. As a physiotherapist I think we need more and more training on this issue. Update knowledge about sexuality of patients with spinal cord injury can enrich our service area. Workshop about different sex position about sexual acivity also be helpful for our rehabilitation service.”

Other participant reported that, “ Physiotherapists do work very closely to patients . Most of the time patients become fully depended on physiotherapists. So we need update information about sexual condition and need highly training from specialist on alternative sex positions and also about home plan for sex life.”

Another participant also said that, “ Spinal cord injury patients pass a long time through the rehabilitation process. Along with the physical therapy, it is important to provide sexual education to patients. We need to train up about the sexual condition which are related to injury level and also about the positioning to sex. Training on sexual activities of patients in future life and also about fertility ,will be helpful for our comprehensive service.”

Most of the physiotherapists want to train up about sexual education that is related to patients with SCI. They mentioned if they get training from specialist who deals this issue , it will be helpful. Majority of them want to know about the impact of level of injury on sexuality. Some of them said about update information will help them to provide better service. All of them want to concern about the positions or alternative ways to sex which is important for patients with SCI. Providing basic knowledge to upcoming professionals would be efficient for our profession.

Use of theoretical and practical model in education and training program of sexual activities such as education on the condition of patients related to level of injury and sexuality, sexual health and care, fertility, sex positions and assistive device to continue sexual activities can enhance the knowledge and service power of professional and help in rehabilitation goals setting for the spinal cord injured patients. It may be more realistic when physiotherapists can communicate easily with the patients about sexuality. Staff training , short course, workshop on sexual rehabilitation of patients with SCI will enrich the quality of service and also can provide standard service to patients. Authority or organization should address on sexual education training for Physiotherapists

THEME -5: Update staff training on sexual education will ensure comprehensive rehabilitation that could improve service.

Subtheme:

- Need update knowledge and information about sexuality of patients with spinal cord injury .
- Modules or booklets for physiotherapists about sex and sexuality of patients.
- Effect of level of injury on sex life of patients with spinal cord injury.
- Training on alternative ways to sex by specialist.
- Education on fertility of patients .

4.3 Limitation of study

There are some limitations that should be kept in mind during conducting the study. The researcher always tried to consider these limitations. The limitations are given below:

The main limitation was resources and information available about sexuality in our country because it is a new study within a Bangladeshi context.

In this study purposive sampling was used to select the participants. So the findings of this study cannot be generalised to all physiotherapists who work in others unit.

Interview was conducted in Bangla. However the study is presented in English. So had to translate interview information from Bengali to English. Sometimes it may difficult to discover actual meaning of some information from the data translation. But researcher tried heart and soul to give the actual information of the data in the study.

Researcher collected data only from CRP and it might be better if can collect data from others.

Researcher conducted face to face interview. So it was difficult to arrange interview session according to participants schedule.

Sexual health is important quality of life outcomes, which can have a major impact on satisfaction of patients with spinal cord injury. Successful rehabilitation requires a holistic approach, taking into account the patient's physical, psychological, interpersonal and sexual life circumstances. The study aim was to explore the approach of physiotherapists to discuss about the sexual wellbeing of patients with spinal cord injury.

While current findings, for physiotherapists, working with sexual health is not only a challenge but a necessity for developing a holistic physiotherapeutic perspective. Physiotherapists can play a vital role in sexual education during rehabilitation for the patients with SCI. Though patients with spinal cord injury frequently ask about their sexual life, but physiotherapist does not directly involve in sexual rehabilitation program. But in this study found that physiotherapists are positive to provide sexual education to patients with SCI.

While physiotherapists knowledge is important in addressing the more functional issues of sexuality rehabilitation. But findings is, lack of knowledge about sexuality of physiotherapists is major barrier to discuss about sexual wellbeing. Also staff comfort and privacy are perhaps an important factor when dealing with sexual issues. So proper environment is needed for this. Beside this in our country, it is tough to talk about sex and sexuality. So both patients and physiotherapists feel discomfort. Female patients want to talk with female physiotherapists, like this male patients want to talk with male one. If , all male and female physiotherapists of SCI unit get training properly , they can work separately with patients.

In this study, all the informant noticed about the training needs for physiotherapists. They experienced a needed for competence development in order to be able to handle the professional challenges of working with sexual health. Here also addressed about the training in communicating about sexual health , during physiotherapy education for upcoming professionals in order to become more confident and comfortable to discuss this topic in clinical situation. Physiotherapists want to know about update knowledge

about sexuality of patients with SCI related to the relationship between injury and sexuality, alternative coital position and others about sexuality to communicate with patients.

In this study all participants are mentioned that, tools and media also unavailable in the SCI unit to provide sexual education. Participants are agreed to know about the use of tools and media. If they have booklets, pictures, dummy or videos on sexual education , they can provide better service to patents which can change quality of life and minimize difficulties of conjugation life of patients with SCI.

In Korea, several rehabilitation centers have offered sexual rehabilitation education and counseling program for spinal cord injured patients(Choi. Et al., 2015). In neuro-rehabilitation physiotherapists also work with providing suggestion around positioning or adaptation equipment in sexual activities (Moreno et al., 2015). Beside this physiotherapists can address the structural counseling strategies and use of instruments in sexual education for cardiac and stroke patients in multidisciplinary tem approach (Steinke et al., 2016).

From this study researcher also found that, the present study curriculum for students of BCs in Physiotherapy, which is not enough to provide information about sex and sexuality of patients with SCI. So, we hope that , this topic will include as early as possible in undergraduate program.

In contrast of other, in our country sexual rehabilitation for spinal cord injury patients is difficult for physiotherapists due to lack of update knowledge and training on sexual education. Also our social and culture roles are other factor to make this issue difficult. But if professional get proper training on sexual education and how they handle the patients, it would be helpful for them to provide sexual education and to communicate with the patients with spinal cord injury. The organization should arrange training program based on theoretical and practical classes for physiotherapists on sexual education of spinal cord injured patients.

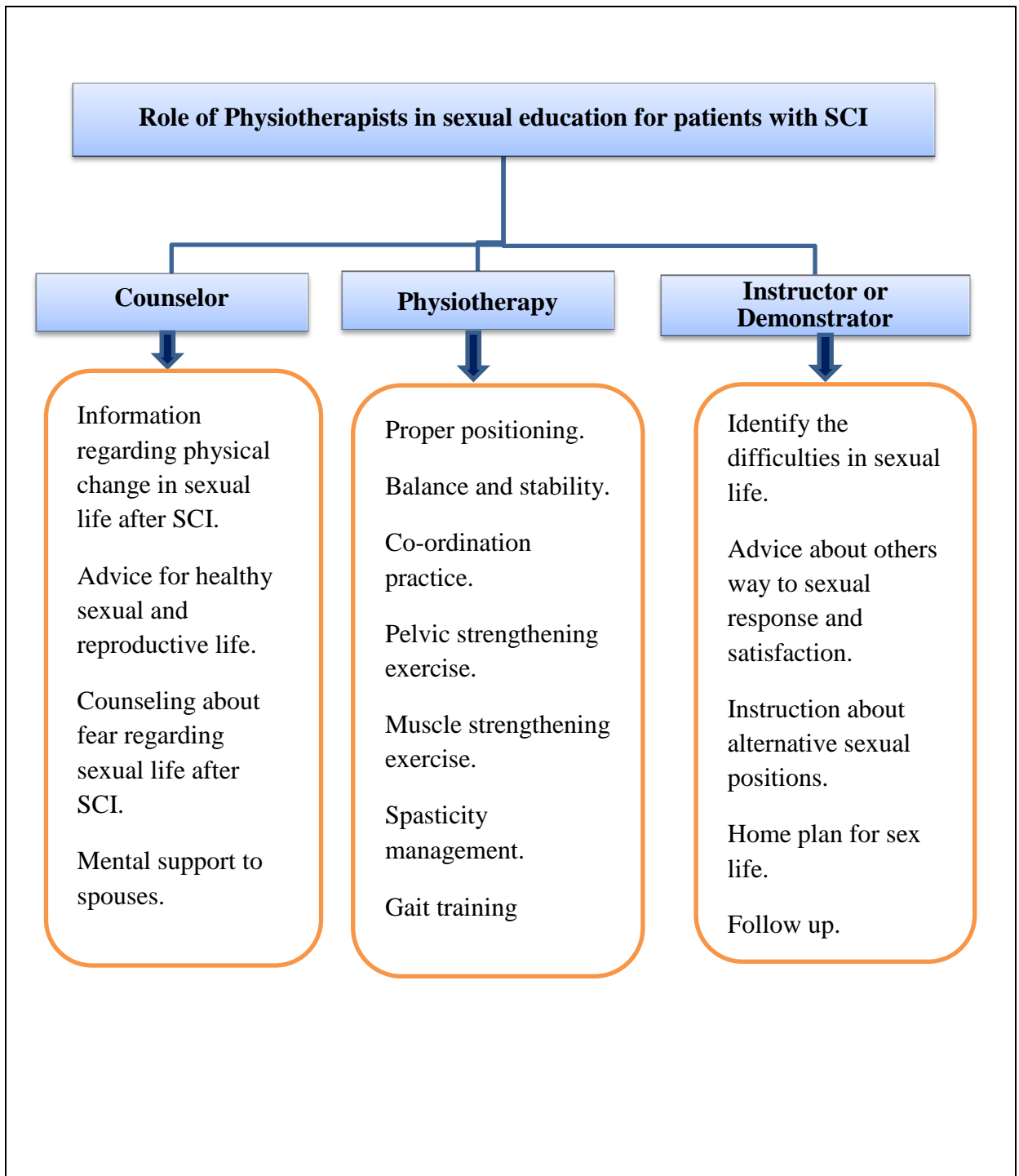


Figure 2: Role of Physiotherapists on sexual education for the patients with SCI .

6.1 Conclusion

Physiotherapy is a continually developing profession, demanding education and understanding of both knowledge and clinical reasoning by the individual physiotherapist on sexual education related to patients. This study explored the present condition of physiotherapists related to sexual education for patients with spinal cord injury, which is not favorable for both patients and professionals. It is important to improve the condition of practice of delivering sexual education to patients with SCI. The experiences recounted by physiotherapists in the study that the sexual education for patients is important and for this physiotherapists need to train on this issue. So it is the best time for organization to take steps to train up the physiotherapists about sexuality and sexual education for patients, who are directly involve in spinal cord injury rehabilitation program. Beside this, including this topic in formal curriculum for the upcoming professionals will create an excellent scope to provide high standard service.

6.2 Recommendation

6.2.1 Recommendation to Authority or Organization:

Researcher recommended to authority or organization to arrange training on sexual education by specialists ,for provided the following guidelines regarding physiotherapists on sexual education for patients with spinal cord injury:

Knowledge on Basic Skill :

- Type of physical changes in sexual functioning after injury
- Cognitive and perceptual difficulties that affect intimacy and sexual

satisfactionn

- Emotional adjustment issues affecting intimacy and sexuality
- Relation between level of injury and sexuality.
- Impact of injury on fertility of patients.

Training on Practical Skills:

- Permit and recognize that sexual issues are relevant to rehabilitation
- Provide information and suggestions to promote sexual satisfaction. Such as:
 - Training on alternative sex positions
 - Train up with tools and medias(booklet, module, pictures videos etc)
- Facilitate emotional and sexual adjustment through counseling, role playing, and empathetic listening
- Competence on identification of client's limitations and abilities in sexual activity.

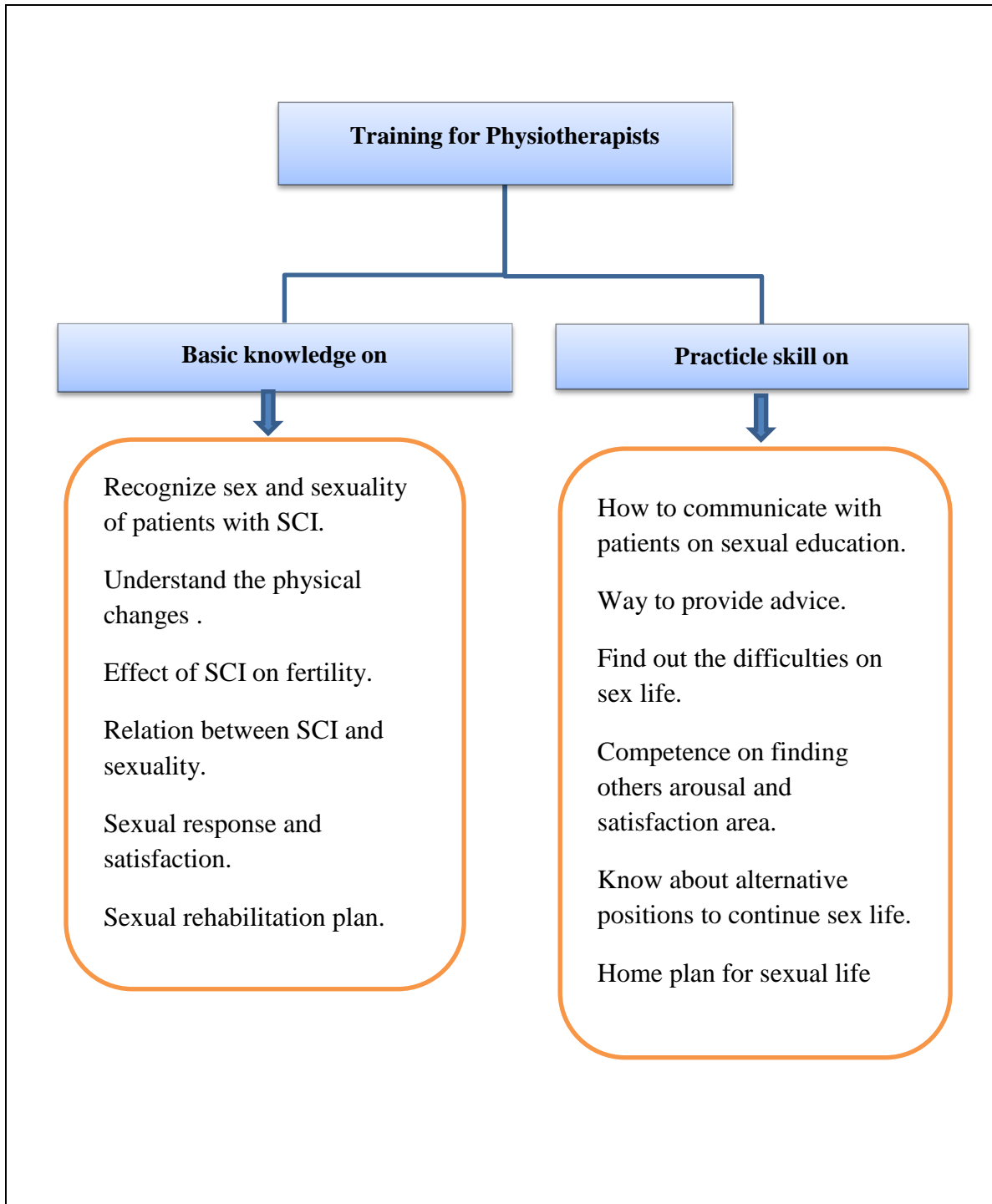


Figure 3 : Training needs for Physiotherapists

6.2.2 Recommendation for Students:

- Researcher cordially requested to responsible authority to include the topic “ Sex and Sexual Rehabilitation” for patients with SCI in formal study curriculum , which can improve quality of service and can develop a strong confident level of upcoming professionals.

6.2.3 Recommendation for further research:

- Further research should be conducted with a large numbers of participants on this study design in other institute.
- Researcher also recommended that to study with others physiotherapists who work in stroke, musculoskeletal, and gynecological area, to explore their approach to discuss about sexuality.
- A new study also could be conducted with patients to find out their perception about their sexual life.
- Researcher also declared that, has no interest in conflict.

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