

## Sex and Intimacy after Stroke

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## **Abstract**

Problem: The sequelae of a stroke can negatively affect sex and intimacy for survivors and their partners.

**Purpose:** This clinical article offers practical evidence-based recommendations for nurses to use in advising couples who may be experiencing sexual problems due to decreased desire, erectile dysfunction, vaginal dryness, paraparesis, pain, spasticity, fatigue, aphasia, concrete thinking, emotional lability, shame, embarrassment, fear, depression, or neurogenic bladder.

**Key Findings and Clinical Relevance:** Recent research and clinical articles show that intimacy and sexual concerns are often ignored by the rehabilitation team, yet research shows that couples want information to assist them to maintain their sexual relationships. Using the PLISSIT model to address sexual concerns, nurses can facilitate discussions to aid couples toward improved sexual function and quality of life.

**Keywords:** Intimacy; cerebral vascular accident; stroke; stroke rehabilitation; rehabilitation nursing; sexuality; sexual dysfunction; sex education in old age.

Stroke is a leading cause of death and disability in the United States (Mozaffarian et al., 2016). An important but not frequently addressed sequelae of stroke is loss of or challenges with sexual function, which can negatively influence quality of life for stroke survivors and their partners. This paper reviews findings of recent research and clinical publications on the impact of cardiovascular disease on sex and intimacy after stroke and recommendations by the American Heart Association (AHA) and the European Society of Cardiology (ESC) Council on Cardiovascular Nursing and Allied Professions (Steinke et al., 2013). Implications for multidisciplinary practice are addressed to promote the sexual health of stroke survivors and their partners.

# American Heart Association Recommendations for Intimacy after Stroke

The AHA (Steinke et al., 2013) consensus document provides over 20 evidence-based recommendations for individuals with cardiovascular disease, many of which can positively influence sexual function. These recommendations

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Kautz, D. D., & Van Horn, E. R. (2016). Sex and Intimacy after Stroke. Rehabilitation Nursing, 42(6), 333-340. doi: 10.1002/rnj.296 focus on three major points of emphasis including: (1) the importance of sexual counseling and education for patients and their partners by healthcare providers, (2) training for healthcare providers in addressing sexual issues with patients and their partners, and (3) tailoring sexual counseling to the individual needs of patients and their partners. Sexual counseling by healthcare providers has been known to be helpful in the resumption of sexual activity after stroke, and this counseling can be tailored to an individual's needs based on age and sex, diagnosis, and severity of the stroke sequelae (Calabro & Bramati, 2014; Kautz, Van Horn, & Moore, 2009; Rosenbaum, Vadas, & Kalichman, 2014; Stein, Hillinger, Clancy, & Bishop, 2013; Steinke et al., 2013). While some patients and their partners may not want to discuss sexual issues, for others, sexual concerns may be a priority during rehabilitation and reintegration in the weeks and months following the stroke. Patients and their partners may not understand that it is safe to resume sex after a stroke, recognize how their medications may affect intimacy, or understand how regular exercise, physical, occupational, and speech and language therapy can support intimacy. Recent research confirms that in spite of decades of research indicating that it is safe to resume sex after stroke, patients and their partners still need to be told it is safe (Steinke et al., 2013). Some patients and their partners may also benefit from counseling to address fears, anxiety, and depression following a stroke (Stein et al., 2013).

Although it is clear that sexual and personal counseling after stroke is needed to address a variety of issues that may occur as a result of the stroke, research continues to

indicate that healthcare providers encounter many barriers including lack of motivation to address these concerns, failure to view sexual counseling as a part of their practice, or lack of confidence, education, or training to provide effective sexual counseling (Kautz, 2007; Mellor et al., 2013; Rosenbaum et al., 2014). One recent study (Stein et al., 2013) found that 81% of stroke survivors received insufficient information about sexuality poststroke. To remedy this, continuing education on sexual counseling should be readily available and required for all members of the stroke rehabilitation team. The goal is to normalize and integrate discussions of sensitive, yet important sexual topics into current practice, supporting the call to action by many authors that these practice changes are needed now (Calabro & Bramati, 2014; Kautz, 2007; Mellor et al., 2013; Rosenbaum et al., 2014; Stein et al., 2013).

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The AHA consensus document provides evidence of the effectiveness of sexual counseling based on cognitive behavioral therapy and social support, and it addresses the importance of providing sexual counseling over several meetings, using a multidisciplinary team approach. With appropriate training, all members of the rehabilitation team can play a role in helping couples adapt to changes after the stroke and maintain or improve their sexual function and intimacy. However, even if only a few members of the team without special training are able and willing to provide basic education, patients and their partners may benefit. At a minimum, patients and their partners can be given educational resources that are supported by the AHA document (Steinke et al., 2013) and current research (Rosenbaum et al., 2014; Song, Oh, Kim, & Seo, 2011; Stein et al., 2013). Examples of current

materials that can be provided to stroke survivors and their family members are listed in Table 1.

The AHA (Steinke et al., 2013) recommendations for sex after stroke are based on a review of 17 studies examining issues affecting sex and intimacy after stroke (Kautz et al., 2009), which led to the following conclusions: the sequelae of stroke and the medications the stroke survivor is taking can negatively affect the gestalt of the sexual act through effects on physical functioning, cognitive processing, emotional expression, and depression (Akinpelu, Osose, Odole, & Odunaiya, 2013; Bugnicourt, Hamy, Canaple, Lamy, & Legrand, 2014; Calabro & Bramati, 2014; Kautz et al., 2009; Rosenbaum et al., 2014; Song et al., 2011). Also, individuals affected by stroke commonly have had other vascular comorbidities for many years prior to the stroke, including diabetes, heart disease, and hypertension, or musculoskeletal conditions including arthritis or chronic pain, all of which may interfere with or preclude sexual activity (Bugnicourt et al., 2014; Rosenbaum et al., 2014; Steinke et al., 2013).

The physical, cognitive, and emotional deficits following a stroke can be overwhelming for stroke survivors and their partners, with profound effects on intimacy and sexuality. To date, research exploring the problems associated with sex after stroke has been limited to descriptive and qualitative studies, and few studies have tested the effectiveness of interventions designed to aid couples in overcoming physical, cognitive, or emotional difficulties encountered during sex after stroke. However, investigators have found that individuals and their partners are open to discussion of sexual concerns after stroke (Rosenbaum et al., 2014; Song et al., 2011; Stein et al., 2013). Thus, it is time to move the science forward to test interventions

**Table 1** Patient education resources for sexual counseling after stroke. These resources are current at the time of publication; however, rehabilitation nurses are encouraged to check for updated resources.

Title	How to access
Sex After Stroke: Our Guide to Intimacy After Stroke (American Heart Association/American Stroke Association)	Brochure product code 50-1653; order at: http://www.heart.org/HEART ORG/General/Sex-After-Stroke-Our-Guide-to-Intimacy-After-Stroke_UCM_310558_Article.jsp
Sex after stroke (National Stroke Association)	StrokeSmart magazine, January/February 2009 featured article:  "Redefining sexuality after stroke." Available at:  http://www.stroke.org/site/PageServer?pagename=SS_MAG_jf2009_feature_sexuality National Stroke Association fact sheet: Recovery After Stroke: Redefining Sexuality.
Intimacy After Stroke	Available at: http://www.stroke.org/site/DocServer/NSAFactSheet_Sexuality.pdf?docID=999 20-Page document that includes a patient questionnaire on sexual functioning after stroke. Available at: http://www.stroke.org.nz/resources/Sexuality-Booklet.pdf
(Stroke Foundation of New Zealand)	Print copies: send an e-mail message to strokenz@stroke.org.nz  Stroke Association—United Kingdom: Sex after Stroke. Available at:
Other stroke resources	http://www.stroke.org.uk/factsheet/sex-after-stroke Caswell J. Sex and intimacy after stroke. Stroke Connection. March/April 2009: pp 12–15. Available at: http://www.nxtbook.com/nxtbooks/aha/strokeconnection_200903/#/14.

to help stroke survivors and their partners maximize their sexual abilities after stroke.

Two recent research studies on sexual rehabilitation programs have tested interventions to improve sexual function with stroke survivors and their partners. Song et al. (2011) studied a sample of 23 couples with one partner having sustained a stroke. The intervention group (n = 12 couples) received educational content, emotional counseling, and specific strategies to minimize or overcome poststroke sexual problems. Results indicated sexual satisfaction and frequency of sexual activity significantly increased over the control group (n = 11 couples). The authors concluded that this intervention program can be useful for poststroke sexual rehabilitation, and the informational components of the program can be administered prior to hospital discharge in a booklet format. The authors also concluded that medical professionals tend to believe that a lack of satisfactory sexual expression after stroke is due to physical and cognitive impairment and pre-existing diseases, but their study suggests that the most serious impediments are a lack of willingness or motivation to improve sexual health, a lack of information about sexual function, and communication blocks, all of which may be helped by giving couples information about overcoming and preventing sexual changes after stroke.

In a second study, Sansom, Ng, Zhang, and Khan (2015) compared the effectiveness of a structured sexual rehabilitation program including written material in a sample of 10 stroke survivors and two partners, randomly assigned to intervention (n = 4) or control (n = 6)groups. The intervention was a 30-minute structured program, based on the PLISSIT model (Permission, Limited Information, Specific Suggestions, Intensive Therapy), led by an interdisciplinary team that provided general information, individual counseling, and written materials. The control group participants received written educational material with additional information and counseling upon request. The researchers found no difference between groups in sexual or psychological functioning or quality of life 6 weeks after the intervention. Trends toward improvement in all outcome measures were noted in both groups, suggesting that written materials or more intensive interventions, including structured programs, may both be beneficial in improving sexual function after stroke. Clearly, the use of written materials related to sexual functioning after stroke administered as an educational intervention before hospital discharge is an important and timely component of sexual rehabilitation after stroke. Healthcare providers should ensure educational materials are available in a variety of languages. For example, there is a high incidence of stroke in Hispanic and Vietnamese populations (Mozaffarian et al., 2016). The resources listed in Table 1 are available in languages other than English.

## Recommendations for Stroke Survivors and Their Partners

Several recommendations are supported by the AHA consensus document (Steinke et al., 2013), research findings (Akinpelu et al., 2013; Bugnicourt et al., 2014; Song et al., 2011; Stein et al., 2013), and practical advice (Kautz, 2007; Rosenbaum et al., 2014) to aid couples to overcome specific impairments after a stroke. These recommendations are primarily based on clinical experiences and articles of practical advice for stroke survivors and their partners (Kautz, 2007; Pierce & Summers, 2015; Rye & Murphy, 2015; Steinke et al., 2013); however, there is no reason to suspect that any of these recommendations are harmful. While impairments related to stroke and sexual function are addressed individually, the strategies for overcoming one impairment may be effective with another. These recommendations are briefly summarized here.

Decreased sexual desire, sometimes referred to as decreased libido, is the most prominent sexual problem in women with or without a disability (Santoro, 2016; Shah & Hillinger, 2015). Vaginal dryness may contribute to a decrease in sexual desire; however, comorbid diseases, managing the sequelae of the stroke, and the challenges of caregiving for the partner also have been found to contribute (Rosenbaum et al., 2014). Typical recommendations to increase sexual desire include the following: maintain grooming and personal hygiene to feel attractive for yourself and your partner; incorporate daily activities that increase feelings of well-being and pleasure, including activities that increased sexual desire before the stroke; be creative, flexible, and open to change; and communicate sexual desire through touch to express thoughts, needs, and desires (Kautz, 2007; Pierce & Summers, 2015).

Erectile dysfunction is common after stroke. Erectile dysfunction, heart disease, and stroke share common pathways and risk factors (Katsiki, Wierzbicki, & Mikhailidis, 2015), including hypertension, hyperlipidemia, smoking, obesity, metabolic syndrome, and obstructive sleep apnea. Therefore, men who have had a stroke are likely to have experienced erectile dysfunction for some time before stroke. Thus, strategies to address modification of risk factors are an appropriate first line of treatment. Weight loss, smoking cessation, and exercise have the potential to enhance sexual function at any age (Katsiki et al., 2015; Steinke et al., 2013). Many men take phosphodiesterase (PDE) type 5 inhibitors, including sildenafil (Viagra®), tadalafil (Cialis®),

vardenafil hydrochloride (Levitra<sup>®</sup>, Staxyn<sup>®</sup>), or avanafil (Stendra<sup>®</sup>). Men may need to collaborate with their physician to find the medication that works best for them. More information about these medications is available from the web-sites listed in Table 2.

Other treatments for erectile dysfunction include axillary applied external testosterone (Axiron®), testosterone pellet implants (Testopel®), erectile dysfunction vacuums, aloprostadil penile injections (Caverject®), intraurethral suppositories (Muse®), penile implants, or vascular reconstruction surgery (Katsiki et al., 2015). Medications used to manage stroke risk factors may contribute to erectile dysfunction, and stroke survivors will need to determine whether alternative medications can be used. Men and their partners who want to effectively treat erectile dysfunction are encouraged to go to the doctor together, discuss the options, and then work together to integrate the treatments into their sexual activities. Many of the websites listed in Table 2 offer guidelines to help couples talk about erectile dysfunction and its effects on sexual function.

Vaginal dryness is common in women who have had a stroke (Shah & Hillinger, 2015; Steinke et al., 2013), and it shares some common risk factors with erectile dysfunction in men (Kautz et al., 2009). Atherosclerosis that can lead to stroke may also cause a reduction in vaginal lubrication and engorgement. Vaginal dryness is a common problem in peri-and postmenopausal women due to changes in estrogen levels and does not improve without treatment (Santoro, 2016). Current treatments for vaginal dryness include oral estrogen hormone therapy, skin patches, topical creams, gels and sprays, and vaginal estrogen therapy. Specific vaginal treatments include a vaginal estrogen ring (Estring®), a soft flexible ring inserted into the vagina and replaced every 3 months, vaginal estrogen tablets (Vagifem®) inserted regularly into the vagina with a disposable applicator, and vaginal estrogen

**Table 2** Patient education resources for erectile dysfunction medications and sexual function. These resources are current at the time of publication; however, rehabilitation nurses are encouraged to check for updated resources.

Websites for information on Erectile Dysfunction

www.viagra.com www.levitra.com

www.cialis.com

www.stendra.com

www.webmd.com (Erectile Dysfunction Health Center) General Sex Education Websites:

www.sexsmartfilms.com (includes videos for those with a

disability and the elderly)

www.womenshealth.org

www.sexualityanddisability.org

www.marriage.about.com

cream (Estrace<sup>®</sup>, Premarin<sup>®</sup>) inserted with an applicator into the vagina regularly (Santoro, 2016).

The use of a sexual lubricant can effectively aid with both erectile dysfunction and vaginal dryness (Palacios, Mejia, & Neyro, 2015). A variety of types of lubricants are commonly available at most larger chain drug stores. Lubricants can be purchased in single use packets, bottles, or pump dispensers—which facilitate use if impaired hand function or paraparesis interferes with opening packets or bottles. There are many websites which provide information on the types and brands of lubricants.

When one partner has paraparesis as a result of stroke, couples may need to adopt new positions for intercourse (Kautz & Barnett, 2014; see Figure 1). In addition to the paraparesis, older couples may have limitations caused by breathing difficulties or arthritis, and recommended positions can help them to overcome these limitations. In addition, couples can be encouraged to experiment with new sexual activities, including new ways or areas of touching (Kautz et al., 2009; Rosenbaum et al., 2014; Song et al., 2011). It may be that the stroke increases touch sensitivity in areas of the body other than the genitals, and these become erogenous zones-for example, specific places on the head and neck, or areas of the skin in the zone between where touch sensation has been lost and is maintained. When couples explore these potentially new erogenous zones, they may find additional pleasure and arousal (Steinke et al., 2013).

Poststroke pain or heightened and painful sensations may accompany paraparesis and contribute to functional and sexual disability (Rye & Murphy, 2015). Most pain management strategies leave some residual pain, which may interfere with sexual desire and sexual excitement. Also, areas of heightened abnormal sensation may interfere with sexual desire and excitement for some, though others may find that stimulating these affected areas leads to sexual arousal. The irritability, fatigue, and depression that accompany chronic pain can also impact a couple's sexual relationship. To minimize these effects, couples should plan for sex at a time when pain is at its lowest level, or when pain medications have their peak action. Pain relief strategies such as massage, a hot bath for arthritic pain, or an electric massager or vibrator may relax sore muscles, relieve stiffened joints, and when done with a partner, stimulate sexual excitement (Rye & Murphy, 2015).

Spasticity in the impaired extremities may lead to unpredictable dystonic movements and painful muscle spasms during sexual intercourse (Pierce & Summers, 2015). Spasticity in hip adductors in both men and women may preclude usual sexual positions and cause pain, which interferes with sexual desire and sexual function. Spasticity also interferes with activities of daily living (ADLs), and comprehensive evaluation and treatment by a specialist



Figure 1. Comfortable positions for intercourse after one or both partners have had a stroke. These positions are appropriate for couples when one or both partners have hemiparesis after a stroke or have limited endurance due to heart disease. When side lying, lie on the affected side. These positions also work well if either partner has breathing problems or has hip or back pain. Adapted from: Mauk, KL (Ed.). (2014). Gerontological nursing: Competencies for care (3rd ed.). Sudbury, MA: Jones and Bartlett. Reprinted with permission.

may be needed. Treatment with motor point blocks of hip adductors may be effective; however, other treatments, such as intrathecal baclofen, may lead to erectile dysfunction and vaginal dryness (Shah & Hillinger, 2015). Exercising and stretching muscles and taking medications for pain and muscle spasms approximately 20 minutes before planned sexual activities may be helpful. The use of alternate positions, including those in Figure 1, may also eliminate or reduce spasticity during intercourse (Steinke et al., 2013).

Fatigue and insomnia are common sequelae of stroke, and they can have a profound effect on the ability of the stroke survivor to perform ADLs and may lead to a depressed mood (Pierce & Summers, 2015). Partners of stroke survivors may also experience fatigue due to the changes that occur in their daily lives after a partner has a stroke. The nurse can refer the survivor or partner to their physician for medical management of insomnia and other sleep disorders, including sleep apnea and restless leg syndrome. A review of current medications for their potential effects on sleep is also recommended (Rye & Murphy, 2015).

Regaining physical stamina after a stroke may be supported by regular physical activities, including low impact stretching, balance, resistance, and aerobic exercise (Pierce & Summers, 2015). Increased physical stamina may increase sexual desire and permit sexual intercourse without partners becoming fatigued (Steinke et al., 2013; Kautz, 2007). Trainers at a gym may have experience in helping stroke survivors adapt exercise activities. A physical therapist may be able to prescribe adaptive exercises, which can be taken to a trainer for assistance. In addition, the activity of going to the gym and "working out" together may enhance intimacy in couples.

Research findings on stroke recovery indicate that the degree of dependence in performing basic ADLs after a stroke is a strong predictor of frequency of sexual intercourse (Shah & Hillinger, 2015). Partners and stroke survivors may have difficulty separating their roles as caregiver and care recipient with roles as sexual partners. One practical recommendation to avoid this overlap is to have nonfamily caregivers provide for bathing and toileting. Another is to work with an occupational therapist to explore strategies to adapt clothing so that the stroke survivor can dress and undress without assistance. Slight modifications to bathing and toileting routines and training in the use of specialized equipment may greatly increase functional independence for a stroke survivor (Pierce & Summers, 2015). Resumption of sex may be a strong motivator to become independent. Another practical suggestion is to ensure that a couple continues to enjoy leisure activities that put both of them in the mood for sex. Activities such as watching a favorite movie, listening to music, spending time outdoors, or enjoying a special meal together may increase sexual desire for both partners (Pierce & Summers, 2015).

Intimacy requires both verbal and nonverbal communication, and aphasia as a result of stroke may be a barrier to communication between partners (Pierce & Summers, 2015; Steinke et al., 2013). Akinpelu et al. (2013) found in a sample of Nigerian stroke survivors that psychological factors, including altered ability to express sexual feelings, had a negative influence on all aspects of sexual function. However, gestures and touching may be used to substitute verbal communication. For example, practitioners can encourage couples to find a way to say "I love you" with gestures rather than words. Tools are available from the Aphasia Institute (www.aphasia.ca) to facilitate nonverbal methods of intimate communication between stroke survivors and their partners and to assist those with aphasia to talk with their healthcare provider about sexual concerns.

Stroke survivors may experience concrete thinking, which can impair communication between partners. Strategies to address this issue include teaching partners to be direct with sexual communication, so that the stroke survivor does not miss the subtle cues of intimate communication (Rye & Murphy, 2015; Steinke et al., 2013). The

ability of a stroke survivor to use humor as a part of intimacy may be lost due to concrete thinking. Humor can still be used as a part of intimacy as long as both parties understand the meaning of the humor. Use of established expressions of humor (such as jokes or humorous words or phrases) to express feelings or discuss events may add to a couple's intimacy as long as the meaning is clear. A couple may find that humorous references to sexual intercourse lighten the mood and increase desire (Kautz, 2007).

Emotional lability and loss of ability to express and interpret emotions may cause a stroke survivor to spontaneously laugh or cry, commonly known as psuedobulbar affect (National Stroke Association, 2015; Pierce & Summers, 2015). Others may not "feel" the emotions of love and belonging after a stroke, or they may lose the ability to notice or interpret the emotions of love and joy. In this case, couples can be directed to develop routines for expressing emotions and sharing joy with each other every day. A couple might find that establishing a routine of a daily devotion or reflection together may encourage intimacy. There are many sources of daily devotions or reflections available, and a couple can choose one that works for them.

Alterations in body function, body image, and selfesteem may occur after a stroke and they have the potential to affect either partner (Kautz et al., 2009). The stroke survivor may not feel attractive, or a partner may be bothered by some of the sequelae of the stroke. These changes can lead to shame, frustration, and depression in both the stroke survivor and partner (Shah & Hillinger, 2015). Akinpelu et al. (2013) found that untreated psychological problems after a stroke could have a negative influence on sexual function. To address these problems, couples can be encouraged to seek counseling or support groups to share ideas, information, and coping (Pierce & Summers, 2015). In addition, the stroke survivor or partner may need an antidepressant, and selective serotonin reuptake inhibitors (SSRIs) are commonly used to treat poststroke depression. Unfortunately, SSRIs may cause a loss of sexual desire in women and delayed ejaculation in men. Shah and Hillinger (2015) offer the following suggestions to reduce sexual dysfunction from antidepressant therapy: reduce the dose, schedule the dose after sexual activity, or take a day off from the medication. They also advocate changing to another antidepressant, such as nefazodone or buprorion, which may have fewer sexual side effects. Finally, Shah & Hillinger note that some practitioners recommend dextroamphetamine, amantadine, or buspirone may be augmented with SSRIs and taken before sexual activity.

Shame, embarrassment, guilt, and frustration may be experienced by stroke survivors and their partners as they

manage the many complications of stroke (Shah & Hillinger, 2015).

For example, difficulties in eating, swallowing, or talking may lead to self-imposed isolation or fear of performing these activities in public. Some stroke survivors may be so embarrassed that they do not seek the therapy necessary to treat these impairments. These negative feelings may have a profound effect on sexual desire and satisfaction in stroke survivors and their partners. Dolezal (2015) recommends that acknowledging these feelings and revealing them in a receptive andsafecontext is one of the best ways to resolveshame, embarrassment, and guilt. Dolezal also notes that nurses can assist in the process by pointing out that these feelings are common after a stroke, avoiding judgment when stroke survivors and their partners admit to having these feelings, acknowledging efforts made to overcome the difficulties, making further recommendations, and reminding couples that improvement takes time. When nurses exhibit acceptance and offer realistic encouragement, stroke survivors may resume or seek therapy to help manage the problems. Stroke survivors and their partners may also be ashamed of their feelings of not wanting to have sex. Again, acknowledging that these feelings are common and offering suggestions to manage problems can be important first steps in helping individuals resolve these issues (Pierce & Summers, 2015).

Fears, myths, and unrealistic expectations may be held by the stroke survivor and partner. The AHA guidelines (Steinke et al., 2013) provide specific information about resuming sex safely and are primarily based on the stability and endurance of both sexual partners. Couples may ask, "How long should I wait to resume sexual activity after stroke?" It is important to inform individuals that there is no research to support a specific time frame for resuming sexual activities. Important factors to discuss with their physician include how they feel physically, whether their heart disease and blood pressure are stable, and whether they can tolerate exercise. Couples should also be reassured that sexual intercourse and masturbation do not place them at risk for another stroke (Steinke et al., 2013). However, since many stroke survivors have concurrent cardiovascular disease, individuals should be told that if they experience discomfort or angina during sexual activity they should notify their physician, as medications may need to be adjusted.

Neurogenic bladder may occur after a stroke due to detrusor muscle hyperreflexia, which leads to an uninhibited bladder (Pierce & Summers, 2015). Prior to the stroke, some women may have had urine leakage when coughing (stress incontinence), and some men may have had urinary difficulties related to prostate enlargement.

## **Key Practice Points**

- Research shows that stroke survivors and their partners want to discuss sexual concerns with members of the rehabilitation team, yet their concerns are often ignored.
- Evidence-based recommendations include asking about intimacy and sexual concerns, discussing the safety of resuming sexual activity, and coping with the stroke sequelae of decreased desire, erectile dysfunction, vaginal dryness, paraparesis, pain, spasticity, fatigue, aphasia, concrete thinking, emotional lability, shame, embarrassment, fear, depression, and neurogenic bladder.
- The PLISSIT model is a useful model for nurses to frame their interventions.

Both partners may avoid sex due to the smell, or be embarrassed or ashamed of the urine leakage. Stroke survivors experiencing any of these problems should be informed that neurogenic bladder can be treated, and incontinence should not be accepted as a routine complication from the stroke. Treatments for neurogenic bladder and incontinence are beyond the scope of this article, and the reader is encouraged to consult a current rehabilitation nursing text for additional information (Lehman, 2015; Mauk, 2012).

## The PLISSIT Model of Addressing Sexual Concerns

Annon (1976) published the PLISSIT model to assist healthcare professionals to address sexual concerns, and it has been used for over 35 years to help practitioners. As mentioned previously, PLISSIT is an acronym for the strategies of giving Permission, Limited Information, Specific Suggestions, and Intensive Therapy in addressing sexual concerns. Although it is helpful to conceptualize these strategies as separate, there is a great deal of overlap among them. Giving the patient or partner permission to discuss sexual concerns is the first strategy, which may be as simple as stating, "After a stroke, patients and their partners may have concerns about resuming sex. What concerns do you have?" After giving permission, the next strategy is giving the patient limited information, for example, recommending weight loss, smoking cessation, and exercise to enhance their health and sexual function. Giving patients and their partners educational pamphlets is another method of providing limited information. When giving specific suggestions, the nurse tailors the information to the patient and their partner. For example, a partner may ask whether it is safe for the stroke survivor to take sildenafil citrate (Viagra) after the stroke. The healthcare provider would then assess the patient's health history to make an individual recommendation. Annon's model includes intensive therapy for long-standing or complex

sexual or relationship problems, which require treatment provided by a sex therapist, counselor, psychologist, or a health-care provider with specialized training in sex therapy.

All of the recommendations in this article are based on the first three strategies of the PLISSIT model: giving permission to bring up sexual concerns and then providing the information and specific suggestions. Thus, nurses implementing these strategies do not necessarily need further training or counseling skills. However, Steinke et al. (2013) note that many healthcare professionals lack the knowledge, ability, or desire to address sexual concerns. It may be helpful to schedule regular training sessions for nurses to help them overcome their own fears and anxieties to discuss effective interventions with stroke survivors and their partners.

### Conclusion

Sexual counseling for patients sustaining a stroke and their partners is an area that needs more attention and action by multidisciplinary healthcare providers. A key component of this care includes education for healthcare providers, so that they can be knowledgeable and comfortable in providing guidance to their patients on addressing sexual issues. In addition, healthcare providers need to remember that sexual problems may be uncomfortable topics for stroke survivors and their partners to discuss, so facilitation of the discussion is an important first step in addressing the problems and aiding couples toward improved sexual function and quality of life. Nurses and other members of the stroke rehabilitation team need to overcome their personal and professional barriers to addressing these issues with their patients and sexual partners and integrate sexual counseling after stroke into the standard of care. As Mellor et al. (2013) note, this is not new information: the time for change is now.

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