Assessing Sexual Dysfunction in Asian Clients

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The seminal work of Masters and Johnson (1966) posited that the human sexual response cycle consisted of four stages—excitement, plateau, orgasm, and resolution. About a decade later, Kaplan (1977, 1979) and Lief (1977) expanded this model to recognize the important role of sexual desire as a separate phase of the sexual response cycle that precedes excitement. This triphasic model of desire—desire, excitement, and orgasm—served as the basis of the categorization of the sexual disorders from the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III; American Psychiatric Association, 1980) onwards: the Sexual Desire Disorders, Sexual Arousal Disorders, and Orgasmic Disorders correspond to the first three stages of the sexual response cycle. The Sexual Pain Disorders were added as a fourth category of sexual dysfunction although the empirical research supporting their inclusion suggested that they were better placed within the Pain Disorders section of the DSM (Binik, 2010a, 2010b).

In the decades since the triphasic model of the sexual response cycle was introduced, a growing body of research has revealed greater complexity in the sexual response cycle as well as multifarious factors that are implicated in the aetiology and maintenance of sexual dysfunctions. Among these factors, the influence of culture on sexuality has received little empirical attention, with a review of published sexuality articles over a 25-year period finding that only 26 % described the cultural characteristics of the sample and just 7 % studied ethnicity as a variable of interest (Wiederman, Maynard, & Fretz, 1996). Of the research that has examined ethnic influences on sexuality, significant differences in sexual function have been found among ethnic groups, and Asians are no exception. For example, Cain et al. (2003) found that Euro-American women reported sexual desire and arousal more frequently than Chinese- and Japanese-American women, and pain during intercourse less frequently than Chinese- and Japanese-American women. While these comparative studies have provided valuable insights into culture-linked differences in sexuality, one of the issues with this research, especially in studies that were conducted in the west, is the propensity to use measures that were developed and validated in largely European American samples and to assume that the measures are equally valid when used in ethnic minority groups. Interpretation of between-group

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L.T. Benuto et al. (eds.), *Guide to Psychological Assessment with Asians*,
DOI 10.1007/978-1-4939-0796-0_15,

differences is therefore problematic as they may be artefacts of the way that members of different cultures respond to the measures. Furthermore, few measures of sexual function have been developed and validated in Asian languages and populations, and of the few English language sexual function measures that have been translated into Asian languages, only a subset have been empirically validated in the relevant populations.

The purpose of this chapter is to promote the assessment of sexual dysfunction in Asian individuals by offering the best options that are currently available in the absence of validated instruments. We will begin by presenting a brief overview of the DSM-IV diagnostic criteria for the sexual dysfunctions and the likely upcoming changes in the next revision of the DSM, followed by estimates on their prevalence among individuals of Asian descent. We will then review cultural issues that may arise in the assessment of sexual dysfunction among Asian Americans and conclude with the best available tools for assessing sexual dysfunction in this population.

The Sexual Dysfunctions

According to the fourth edition with text revision of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association, 2000), a sexual dysfunction is "characterized by a disturbance in the processes that characterize the sexual response cycle or by pain associated with sexual intercourse" (p. 535). The diagnostic criteria comprise (1) recurrent or persistent symptoms relating to one of the phases of the sexual response cycle, or pain with sexual intercourse, (2) marked distress or interpersonal difficulty, and (3) the disturbance is not better accounted for by another Axis I disorder and is not due solely to the physiological effects of a substance or a general medical condition. Within the DSM-IV-TR, the sexual dysfunctions that affect the desire phase are Hypoactive Sexual Desire Disorder and Sexual Aversion Disorder; those affecting the excitement phase are Female Sexual Arousal Disorder and Male Erectile Disorder; and those that affect the orgasm phase are Female Orgasmic Disorder, Male Orgasmic Disorder, and Premature Ejaculation. The sexual pain disorders are Dyspareunia and Vaginismus, with dyspareunia occurring in both men and women, and vaginismus occurring only in women. It is important to note that like other Axis I disorders, there is high comorbidity among the sexual dysfunctions.

The DSM-5: Merging and Deletion

A brief summary of the changes in the DSM-5 will be presented here as they reflect the current research on sexual dysfunctions.

DSM-5 reflects a major change in the number of female sexual dysfunctions. A new diagnostic category of Sexual Interest/Arousal Disorder with an expanded list of specifiers has replaced DSM-IV-TR's Hypoactive Sexual Desire Disorder and Female Sexual Arousal Disorder. Sexual Aversion Disorder has been dropped from DSM-5. Each disorder is also accompanied by a list of biopsychosocial factors that affect sexual function (Brotto, 2010; Graham, 2010). This proposed change reflects the rarity of Sexual Aversion Disorder and the clinical difficulty in distinguishing between Hypoactive Sexual Desire Disorder and Female Sexual Arousal Disorder, as well as women's difficulties in differentiating sexual desire from subjective sexual arousal (Brotto, Heiman, & Tolman, 2009; Graham, Sanders, Milhausen, & McBride, 2004; Hartmann, Heiser, Ruffer-Hesse, & Kloth, 2002). Similarly, the previous diagnostic categories of Dyspareunia and Vaginismus have been replaced by a single category, Genito-Pelvic Pain/Penetration Disorder (Binik, 2010a, 2010b). The major reasons for this proposal are (1) there is currently no evidence that suggests that Vaginismus and Dyspareunia can be reliably differentiated, and (2) there is evidence that suggests that Dyspareunia may be more appropriately considered a pain disorder than a sexual one. In summary, the proposed changes will result in three female sexual dysfunctions in the DSM-5: Sexual Interest/Arousal Disorder, Female Orgasmic Disorder, and Genito-Pelvic Pain/Penetration Disorder.

With regard to the male sexual dysfunctions, most changes are relatively minor, but include additional specifiers (as was done for the female sexual dysfunctions), as well as changes to the names of the dysfunctions. Delayed Ejaculation has been suggested as an alternative to Male Orgasmic Disorder and Early Ejaculation has been proposed as an alternative to Premature Ejaculation (Segraves, 2010a, 2010b, 2010c). No name changes have been proposed for Hypoactive Sexual Desire Disorder except the inclusion of "Male" before the name of this disorder to distinguish it from Sexual Interest/Arousal Disorder in women.

Prevalence of Sexual Difficulties in Asian Individuals

In the largest study of sexuality-related attitudes, beliefs, behaviours, and satisfaction in middle-aged and older adults that has been conducted to date, 13,882 women and 13,618 men aged 40–80 years in 29 countries were assessed for the presence of sexual difficulties in the Global Study of Sexual Attitudes and Behaviors (GSSAB; Laumann et al., 2005). Participants were asked whether they had experienced lack of interest in having sex, difficulty in reaching orgasm, reaching orgasm too quickly, physical pain during sexual intercourse, lack of pleasure with sex, difficulty achieving or maintaining an erection (men only), or difficulty becoming sufficiently lubricated (women only) during the previous 12 months. A follow-up question regarding frequency (occasionally, sometimes, or frequently) was asked of participants who endorsed the presence of sexual problems, with frequency of the problem serving as a proxy for severity. Laumann and colleagues (2005) found that the prevalence of sexual problems was almost always higher in East Asia (defined as China, Hong Kong, Japan, Korea, and Taiwan) and Southeast Asia (defined as Indonesia, Malaysia, Philippines, Singapore, and Thailand) compared to other regions in the world. Among women, the incidence of lack of sexual interest, inability to reach orgasm, reaching orgasm too quickly, pain during sex, finding sex not pleasurable, and lubrication difficulties was higher in East Asia and Southeast Asia than in Europe and North America. Similarly, among men, the incidence of lack of sexual interest, inability to reach orgasm, early ejaculation, pain during sex, finding sex not pleasurable, and erectile difficulties was higher in East Asia and Southeast Asia than in the west. Studies of individuals of Asian and European descent conducted in North America have yielded similar findings, and results have been consistent across diverse populations ranging from university and community samples to population-based studies (e.g., Avis et al., 2005; Brotto, Chik, Ryder, Gorzalka, & Seal, 2005; Brotto, Woo, & Gorzalka, 2012; Cain et al., 2003; Woo, Brotto, & Gorzalka, 2011).

In addition to the well-documented ethnic differences in sexual function, more recent research findings indicate that acculturation within ethnic groups, which has been defined as changes that occur in the self-identity of individuals who move from one culture to another, also influences self-reported sexual functioning. Specifically, greater acculturation to western culture among Asian individuals has been linked to higher sexual desire, arousal, and satisfaction (e.g., Brotto et al., 2005; Woo, Brotto, & Gorzalka, 2009) and higher affiliation with the culture of origin has been associated with more sexual avoidance and more sexual complaints (Brotto et al., 2005; Woo & Brotto, 2008).

Cultural Considerations in the Assessment of Sexual Dysfunction in Asian Americans

Sex Guilt

What are the mechanisms by which culture influences sexuality? Recent research suggests that among Chinese, Japanese, and Korean men and women, sex guilt may play an important role in sexual functioning. Sex guilt may be understood as guilty feelings in relation to sexual behaviour or sexual situations. The results of three studies that examined sex guilt and sexual desire among

Chinese Canadian, Japanese Canadian, Korean Canadian, and European Canadian university men and women revealed that Asian ethnicity was associated with higher self-reported sex guilt, which in turn was associated with lower self-reported sexual desire (Brotto et al., 2012; Woo et al., 2011; Woo, Brotto, & Gorzalka, 2012). Although it is not possible to empirically demonstrate a causal relationship between sex guilt and sexual dysfunction, there is a small but growing body of evidence that indicates an association between the two. In addition to the studies cited above, Nobre and Pinto-Gouveia (2006) found that sex guilt was one of the best discriminants between women with and without sexual dysfunction, and Nobre and Pinto-Gouveia (2003) found that sex guilt was negatively correlated with sexual desire and sexual satisfaction, such that higher sex guilt was associated with lower sexual desire and sexual satisfaction.

These findings have important clinical implications for the assessment of sexual dysfunction in Chinese, Japanese, and Korean American individuals. Specifically, they suggest that participation in the assessment of sexual functioning may be difficult for these individuals as guilty feelings may be elicited through the discussion of sexual material. Individuals from these cultures may thus choose not to present for the assessment and treatment of sexual difficulties, a speculation that appears reasonable based on anecdotal observations that individuals from these cultures are underrepresented in treatment settings in a metropolitan Canadian city with a large Asian population. Furthermore, and consistent with their higher levels of sex guilt, individuals from these cultures are more likely to view sex as procreative than recreative (e.g., Cain et al., 2003) and may seek treatment only when their sexual difficulties interfere with fertility. When an individual presents for assessment, it may therefore be especially important for the assessor to be mindful of the potential for culture-linked discomfort with sexuality. It may be helpful to discuss the client's discomfort and to normalize it. While it is generally important for questions about sexuality to be asked in a serious manner in professional settings (e.g., doctor's office, psychologist's clinic) and for the clinician to demonstrate comfort with the topic, a serious demeanour, comfort with discussing sexuality, and the ability to put clients at ease may be especially important when assessing sexual dysfunction among Chinese, Japanese, and Korean American clients. Unfortunately, as similar research has not been conducted among other Asian American groups, the extent to which these findings and implications generalize to Indian Americans and Southeast Asian American individuals is unknown.

Sexual Communication in Asian Individuals

The research that has considered sexual communication among Asian individuals suggests that undergoing an assessment of sexual dysfunction is likely to elicit considerable discomfort. Cross-cultural quantitative research suggests that Asian Americans talk to their friends less frequently about sex compared to European Americans (Chan, 1997; Moore & Erickson, 1985). This pattern is also seen within families (Kim & Ward, 2007) and is consistent with the cultural belief that sexuality is a private topic that is inappropriate for discussion with others (Okazaki, 2002). This belief may pose an additional barrier to presenting for an assessment of sexual dysfunction for Asian Americans.

If this barrier is overcome and the client presents for assessment, another feature of communication in Asian cultures becomes salient. Despite the observation that individuals in Asian cultures *talk about* or *discuss* sex less frequently than their western counterparts, qualitative research on Asian sexual communication reveals that much is communicated about sex through non-verbal or indirect means. Asian cultures have been described as "high-context" cultures in that speakers convey messages in indirect and implicit ways, and listeners use contextual cues to discern the meaning of the verbal portion of the message. Asian parents have been documented to convey their disapproval of premarital sex through the use of statements such as "romance is for

marriage, and not before" (Kim & Ward, 2007) and Chinese Canadian women participating in focus groups about Pap testing and sexuality were observed to discuss these topics in depth with minimal use of the terms "sex" and "Pap testing" (Chang, Woo, Yau, Gorzalka, & Brotto, 2013). In both of these instances, the speakers' meaning was clearly understood without the need to resort to explicit statements.

In the clinical setting, Asian Americans are therefore more likely than their Euro-American counterparts to refer to sexuality-related issues such as genitalia, sexual difficulties, and sexual activities in what may appear to be vague terms. Clinical sensitivity will be required to establish and maintain a balance between the clinician's need to gather specific information to inform the diagnosis and treatment, and the client's preference for avoiding the use of explicit statements. It may be especially important to allow the client to begin by describing the problem in their own words. This would provide the clinician with the opportunity to observe the client's style of communication and degree of comfort with discussing sexual issues. It may also be helpful for the clinician to preface requests for greater specificity with a brief rationale for the requests.

Assessment Tools

Clinical Interview

The clinical interview represents the primary source of information about the client's sexual functioning and is the most important tool at the clinician's disposal. It is also likely to yield information on culturally relevant influences on the client's sexual functioning. Whereas standardized structured or semi-structured interviews are available for the assessment of other Axis I disorders, there is as yet no similar instrument for the assessment of sexual dysfunctions. However, guidelines for the comprehensive clinical evaluation of sexual dysfunction have been proposed by a number of experts in the field (e.g., Derogatis & Balon, 2009; Pukall, Meana, & Fernandez, 2010) and these are summarized here.

The clinical interview usually begins with open-ended questioning, allowing the client to describe their sexual difficulties in their own words. Using the client's characterization as a starting point, the clinician can follow the client's cues and gradually ask more specific questions about the difficulties. Increasing specificity in questioning may be especially important in the assessment of Asian American clients as research on East Asian learning styles suggests that East Asians dislike ambiguity and uncertainty, both of which are inherent elements of open-ended questions. With regard to the content of the interview, it is essential to ascertain the phase or phases in the sexual response cycle at which the difficulties occur, the course of the difficulties, as well as the biological, psychological, social, and cultural influences that may underlie the sexual problems. Because sexual dysfunctions can arise from multiple etiological factors, and because these factors often interact with and reinforce one another, careful and thorough examination is required to enable the clinician to construct an accurate case conceptualization.

Biological factors that may influence sexual functioning include age, body mass index, physical illness (e.g., diabetes mellitus, cardiovascular disease, sexually transmitted infections), chronic pain, hormone levels, and lifestyle (e.g., exercise, diet). A wide array of medications such as selective serotonin re-uptake inhibitor antidepressants, antipsychotics, and antihypertensives have the potential to affect normal functioning at multiple stages of the sexual response cycle and it is important to inquire about the temporal relationship between the commencement of medication use and the onset of sexual problems. It may be necessary to make a medical referral for the assessment of some of these factors.

During the interview, it is also important to assess psychological factors, including stress and mental illness such as anxiety and depression as the latter are frequently associated with sexual dysfunction. For example, it has been estimated that about 40–50 % of individuals diagnosed with major depressive disorder also have sexual dysfunction (Bonierbale, Lancon, & Tignol, 2003). Other psychological factors that have been

implicated in sexual functioning include body image, self-esteem, and difficulties with mindfulness (i.e., staying in the moment) during sexual activity. Fear of disease or pregnancy may also disrupt the sexual response cycle and should be asked about. As discussed earlier, high sex guilt has been associated with poorer sexual function; as such, it is important for the clinician to explore the potential presence of guilty feelings surrounding sexuality.

Social or relational issues also need to be assessed in the interview. Examples of issues relating to the current relationship that are important to assess include discrepancies in sexual desire and preferences (e.g., preferences for position, techniques, frequency, timing), the effectiveness of communication, and the quality of the relationship (e.g., amount of conflict). The availability of both partners for assessment, either separately or together, is helpful as sexual dysfunction in the partner is common, and this can be assessed directly if the partner is willing to be interviewed. The clinician should also ask about affairs outside the relationship and whether the sexual dysfunction occurs or has occurred in other sexual relationships.

Finally, it is important to explore cultural and religious attitudes and beliefs about sexuality and their impact on the client's sexual functioning. For instance, is sex viewed as an enjoyable activity with the partner or as serving a purely procreative role? Does the client see sex as something shameful or as an integral part of human nature? What messages did the client receive about sexuality from their family of origin? Sexuality-related beliefs and attitudes can be influential in the development and perpetuation of sexual difficulties and need to be respected for successful treatment of the client.

It is important to note that compared to the assessment of other psychological difficulties, the assessment of sexual dysfunction may be especially influenced by the clinician's characteristics. One reason for this, as discussed earlier, is the absence of a standardized structured or semi-structured interview for assessing sexual dysfunction, which leaves clinicians to their own devices in terms of deciding what questions to ask. A related issue is that sexuality, arguably more so than other psychological difficulties, is a topic that is value-laden and the clinician's personal values and beliefs, as well as their views of Asians and sexuality, may affect the questions they ask and the conclusions that they draw. The effective assessment and treatment of sexual dysfunction in the Asian American client therefore requires that clinicians be aware of their personal biases that may influence their clinical judgment.

Self-Report Measures of Sexual Dysfunction

In this section, information on the most frequently used psychometric measures that were developed to assess the quality of an individual's sexual functioning will be presented, with an indication of which are available in languages that are relevant to the cultural groups that are the focus of this book (Table 15.1). While there are a large number of measures that have been developed to assess sexual dysfunction, there is a relatively small handful of widely used measures. Moreover, the vast majority of these measures were created and validated in the west, with norms and cutoff scores that were developed based primarily on research conducted in western samples. An additional caveat on the use of psychometric measures is that formal diagnosis of a sexual dysfunction cannot occur on the basis of these measures alone, even though diagnostic-like domain labels may suggest otherwise; the clinical interview is an integral component of the diagnostic process.

In addition to measures of sexual dysfunction, we have also included the Female Sexual Distress Scale (FSDS; Derogatis, Rosen, Leiblum, Burnett, & Heiman, 2002). The FSDS is a self-report measure of sexually related personal distress in women and is included here because the presence of sexuality-related distress is required before a DSM-IV-TR diagnosis of a sexual dysfunction can be made and because the FSDS has

Table 15.1 Tools for assessing sexual dysfunction with Asian clients

Measure	Languages	Notes/recommendations
Measures applicable to men and women		
Arizona Sexual Experience Scale (McGahuey et al., 2000)	English, Chinese. However, the Chinese version does not appear to have been published	Measures sexual drive, arousal, penile erection/vaginal lubrication, ability to reach orgasm and satisfaction from orgasm in men and women
Changes in Sexual Functioning Questionnaire (Clayton et al., 1997)	English, Chinese (traditional)	Measures sexual desire, frequency, pleasure, arousal, and orgasm in men and women
Derogatis Interview for Sexual Functioning (Derogatis, 1997)	English	Measures sexual cognition/fantasy, arousal, sexual behaviour/experience, orgasm, sexual drive/relationship in men and women
Golombok-Rust Inventory of Sexual Satisfaction (Rust & Golombok, 1986)	English	Subscales in the male version are labelled Impotence, Premature Ejaculation, Non-sensuality, Avoidance, Dissatisfaction, Infrequency, and Noncommunication. Subscales in the female version are labelled Vaginismus, Anorgasmia, Non-sensuality, Avoidance, Dissatisfaction, Infrequency, and Noncommunication
Nagoya Sexual Function Questionnaire (Kikuchi et al., 2011)	Japanese	Male version measures the frequency of pulsating sensations in the mammary area, galactorrhea, interest in women, sexual interest, sexual self-confidence, erectile dysfunction, and ejaculatory difficulties. Female version measures the frequency of menstrual irregularity, pulsating sensations in the mammary area, galactorrhea, interest in men, sexual interest, sexual self-confidence, and sexual arousal
Measures applicable to women		
Brief Index of Sexual Functioning for Women (Taylor et al., 1994)	English	Measures sexual thoughts/desire, arousal, frequency of sexual activity, receptivity/initiation, pleasure/orgasm, relationship satisfaction, and problems affecting sexual function
Female Sexual Distress Scale (Derogatis et al., 2002)	English, Korean	Measures sexually related personal distress
Female Sexual Function Index (Rosen et al., 2000)	English, Chinese (traditional and simplified), Japanese, Malay, Tamil	Measures sexual desire, arousal, lubrication, orgasm, sexual satisfaction, and pain with intercourse
McCoy Female Sexuality Questionnaire (McCoy & Matyas, 1998)	English	Measures sexual enjoyment, sexual arousal, sexual interest, satisfaction with partner, feelings of attractiveness, frequency of sexual intercourse, frequency of orgasm, pleasure from orgasm, lubrication, pain with sexual intercourse, and impact of partner's potential erectile difficulties
Profile of Female Sexual Function (Derogatis et al., 2004)	English	Measures sexual desire, arousal, orgasm, sexual pleasure, sexual concerns, sexual responsiveness, and sexual self-image
Sexual Interest and Desire Inventory (Clayton et al., 2006; Sills et al., 2005)	English	Measures sexual satisfaction, sexual receptivity, sexual initiation, frequency of desire, affection, satisfaction with level of desire, distress regarding level of desire, positive thoughts about sex, interest in erotica, frequency of arousal, ease of arousal, continuation of arousal and orgasm

(continued)

Table 15.1 (continued)

Measure	Languages	Notes/recommendations
Short Personal Experiences Questionnaire (Dennerstein et al., 2001)	English	Measures feelings for partner, sexual responsivity, sexual frequency, libido, partner problems in sexual performance, and vaginal dryness/dyspareunia
Measures applicable to men		
Brief Sexual Function Inventory—(O'Leary et al., 1995)	English	Measures sexual drive, erection, ejaculation, perceptions of problems in each area, and overall sexual satisfaction
Chinese Index of Premature Ejaculation (Yuan et al., 2004)	Chinese (simplified)	Measures degree of sexual interest, frequency of erections hard enough for sexual intercourse, frequency of maintenance of erections until the completion of sexual intercourse, intravaginal ejaculatory latency, difficulty in prolonging sexual intercourse, sexual satisfaction, partner's sexual satisfaction, frequency of partner reaching orgasm, confidence in being able to complete sexual activity, and frequency of feelings of anxiety, depression, or stress during sexual activity
Index of Premature Ejaculation (Althof et al., 2006)	English	Measures ejaculatory control, sexual satisfaction, and distress
International Index of Erectile Function (Rosen et al., 1997)	English, Chinese, Japanese, Korean, Malay	Measures erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction
Male Sexual Health Questionnaire (Rosen et al., 2004)	English, Korean	Measures ejaculation, erection, and sexual satisfaction

become a benchmark in the psychometric measurement of sexual distress in women.

Measures applicable to both men and women. The *Arizona Sexual Experience Scale* (ASEX; McGahuey et al., 2000) is a self-report measure that was designed to assess sexual functioning in men and women being administered psychotropic drugs. The ASEX consists of five single-item domains—drive, arousal, penile erection/vaginal lubrication, ability to reach orgasm, and satisfaction from orgasm—that are assessed on a 6-point Likert scale. Total scores may range from 5 to 30, with higher scores being indicative of more sexual dysfunction. The ASEX demonstrated excellent internal consistency (Cronbach's $\alpha = 0.91$) and strong test–retest reliability (ranging from 0.80 for patients to 0.89 for controls) in the validation sample.

Although the ASEX has been translated into Chinese and there are references to validation studies of the Chinese version (e.g., Jenkins et al., 2011; Lin, Juang, Wen, Liu, & Hung, 2012), these validation studies appear to have not been published and authors wishing to use the ASEX in Chinese-literate populations have conducted their own translations of the original English version (e.g., Chen, Lin, Wang, & Shuai, 2011).

The *Changes in Sexual Functioning Questionnaire* (CSFQ; Clayton, McGarvey, & Clavet, 1997) is designed to assess illness- and medication-related changes in sexual functioning and may be clinician-administered as a structured interview or self-administered as a questionnaire. The CSFQ consists of 35 items in the female version and 36 items in the male version that fall into five domains of sexual functioning—sexual

desire, frequency, sexual pleasure, sexual arousal, and orgasm—and also provides a total score that indicates overall sexual functioning, with lower scores reflecting poorer sexual functioning. The CSFQ was originally standardized on a sample of American medical students and psychiatry residents and was found to possess high test–retest reliability. The CSFQ has also been abbreviated into the CSFQ-14, a 14-item self-administered version of the measure which yields scores for the five domains of the original CSFQ as well as a score for overall sexual functioning (Keller, McGarvey, & Clayton, 2006).

The CSFQ-14 has been translated into Chinese and validated in a number of studies of sexual dysfunction in Taiwan (e.g., Chen et al., 2008, 2009). The Chinese version of the CSFQ-14 has good internal consistency (Cronbach's α=0.86 in the Chinese validation sample). The cutoff score for women is 32 and that for men is 42, with scores below these thresholds indicating the potential presence of a sexual dysfunction that should be thoroughly evaluated through a clinical interview.

The *Derogatis Interview for Sexual Functioning* (DISF/DISF-SR; Derogatis, 1997) is similar to the CSFQ in that it may be either clinician administered as an interview (DISF) or self-administered as a gender-keyed questionnaire (DISF-SR). Both versions of the DISF consist of 25 items that are responded to on four-point Likert scales and assess overall sexual functioning in addition to five specific domains: sexual cognition/fantasy, sexual arousal, sexual behaviour/experience, orgasm, and sexual drive/relationship. Higher scores on the DISF/DISF-SR indicate better sexual functioning. Test–retest reliability ranged from 0.80 to 0.90, and internal consistency ranged from 0.74 for the sexual drive/relationship domain to 0.80 for the orgasm domain. To date, there are no published studies that have described the use of the DISF/DISF-SR or its validation in Asian Americans.

The *Golombok-Rust Inventory of Sexual Satisfaction* (GRISS; Rust & Golombok, 1986) is a self-report inventory with gender-specific versions that measure the existence and degree of sexual dysfunction. Both versions contain 28 items with a five-point Likert response format that comprise seven subscales. Higher scores on the GRISS indicate lower sexual functioning. The subscales in the male version are labelled Impotence, Premature Ejaculation, Non-sensuality, Avoidance, Dissatisfaction, Infrequency, and Noncommunication. The subscales in the female version are labelled Vaginismus, Anorgasmia, Non-sensuality, Avoidance, Dissatisfaction, Infrequency, and Noncommunication. Split-half reliability for the overall male GRISS in the standardization is 0.87 and test–retest reliability is 0.76. Internal consistency of the subscales ranges from 0.61 for Noncommunication to 0.78 for Impotence and Premature Ejaculation, and test–retest reliability ranges from 0.52 for Noncommunication to 0.84 for Premature Ejaculation. Standardization data for the overall female GRISS indicate that split-half reliability is 0.94 and test–retest reliability is 0.65. Internal consistency of the subscales ranges from 0.61 for Noncommunication to 0.83 for Anorgasmia and test–retest reliability ranges from 0.47 for Female Dissatisfaction to 0.82 for Vaginismus. Both versions of the GRISS effectively discriminate between individuals with and without sexual dysfunction in research settings.

There are no published studies that reference versions of the GRISS that have been translated into Asian languages. However, the English version of the GRISS has been used in the study of the effects of acculturation on the sexual functioning of Asian (Chinese, Southeast Asian, Korean, Japanese, Vietnamese) Canadian men and women (e.g., Brotto, Woo, & Ryder, 2007; Woo & Brotto, 2008).

The *Nagoya Sexual Function Questionnaire* (NSFQ; Kikuchi et al., 2011) is a self-administered, gender-specific questionnaire that was created by researchers in Nagoya, Japan, who aimed to develop and validate a Japanese measure of sexual functioning for patients with schizophrenia taking antipsychotic medications. The NSFQ consists of seven items that are responded to on a five-point adjectival scale. Higher scores on the NSFQ indicate lower sexual functioning. The male version contains items that inquire about the frequency of pulsating sensations in the mammary area, galactorrhea, interest in women, sexual interest, sexual self-confidence, erectile

dysfunction, and ejaculatory difficulties. The female version contains items that inquire about the frequency of menstrual irregularity, pulsating sensations in the mammary area, galactorrhea, interest in men, sexual interest, sexual self-confidence, and sexual arousal. The NSFQ demonstrated acceptable internal consistency (0.76 for men and 0.79 for women) and excellent test–retest reliability (0.92 for both men and women) and has been used in a study of the prevalence of sexual dysfunction in patients with schizophrenia (Kikuchi et al., 2012).

Measures applicable to women. The *Brief Index of Sexual Functioning for Women* (BISF-W; Taylor, Rosen, & Leiblum, 1994) is a self-report questionnaire that consists of 22 items that yield an overall score for sexual function and assess the dimensions of thoughts/desire, arousal, frequency of sexual activity, receptivity/initiation, pleasure/orgasm, relationship satisfaction, and problems affecting sexual function. Responses are given in a variety of formats. A principal components analysis identified three factors which were labelled as Sexual Interest/Desire, Sexual Activity, and Sexual Satisfaction. Internal consistency of the factors ranged from 0.39 for Sexual Interest/Desire to 0.83 for Sexual Activity, and test–retest reliability ranged from 0.68 for Sexual Satisfaction to 0.78 for Sexual Activity.

The BISF-W has been used in the study of sexual function in married women in North India (Avasthi et al., 2008). Unfortunately, data on reliability and validity in this sample are unavailable.

The *Female Sexual Distress Scale* (FSDS; Derogatis et al., 2002) is a 12-item self-report inventory that measures sexually related personal distress in women. Items are responded to on four-point adjectival scales and higher scores on the FSDS indicate higher levels of sex-related distress. The scale was initially validated on a total of about 500 women, of whom 340 had been diagnosed with a sexual dysfunction at the time of their evaluation. The FSDS demonstrated high internal consistency and test–retest reliability across all of the three initial validation studies, in addition to demonstrating a strong ability to distinguish between women with and without sexual dysfunction.

The FSDS has been translated into Korean and validated in a sample of married Korean women (FSDS-K; Bae et al., 2006). The FSDS-K consists of 20 items and showed excellent internal consistency (0.96) and test–retest reliability (0.99). The FSDS-K also effectively discriminated between women with and without subjective distress related to sexual dysfunction. The FSDS was also used in a study of the efficacy and safety of a topical cream for the treatment of female sexual arousal disorder in Chinese women (Liao et al., 2008) although no published studies have reported on the validation of this measure in Chinese populations.

The *Female Sexual Function Index* (FSFI; Rosen et al., 2000) is the most widely used self-report measure of overall sexual functioning in women. It contains 19 items with five- or six-point adjectival scales that inquire about sexual function in the previous 4 weeks. The FSFI yields an overall score for sexual functioning as well as scores for the domains of sexual desire, arousal, lubrication, orgasm, sexual satisfaction, and pain with intercourse. Higher scores on the FSFI indicate better sexual functioning. In the original validation sample, test–retest reliability was high, ranging from 0.79 for the pain domain to 0.86 for the lubrication domain, and internal consistency was also high and ranged from 0.89 for the satisfaction domain to 0.96 for the lubrication domain.

The FSFI has been translated into and psychometrically validated in a number of Asian languages, and these versions of the FSFI will be described here in turn. The Malay version of the FSFI (MVFSFI; Sidi, Abdullah, Puteh, & Midin, 2007) was validated in a sample of married women who presented at a primary care clinic in Kuala Lumpur, Malaysia. Like the FSFI, the MVFSFI contains 19 items that are responded to on five- or six-point adjectival scales and covers the same six domains of sexual functioning. Test–retest reliability of the MVFSFI was high and ranged from 0.77 for the arousal domain to 0.97 for the orgasm domain. Internal consistency was also high and ranged from 0.87 for the desire domain to 0.95 for the satisfaction domain.

There is also a Japanese version of the FSFI (FSFI-J; Takahashi, Inokuchi, Watanabe, Saito,

& Kai, 2011) that was validated in Japanese women who were in partnered relationships. Some instructions from the FSFI were modified in the FSFI-J in an attempt to reduce the occurrence of missing data. For instance, pilot testing revealed that women who had not engaged in sexual activity in the previous 3 months were more likely to skip questions about their satisfaction with the sexual relationship with their partner. To address this issue, "all of the following questions can be answered even if you do not have a partner or sexual activity" was added at the beginning of the FSFI-J. Exploratory factor analysis of the FSFI-J revealed five principal factors (compared to six for the FSFI): desire/arousal, lubrication, orgasm, satisfaction, and pain. Internal consistency of the FSFI-J was excellent and ranged from 0.84 for the satisfaction domain to 0.97 for the lubrication domain.

There are two validated Chinese language versions of the FSFI—one in traditional Chinese which was developed in Taiwan (Chang, Chang, Chen, & Lin, 2009), and one in simplified Chinese which was developed in China (Sun, Li, Jin, Fan, & Wang, 2011). The former was developed to measure the sexual concerns of pregnant women in Taiwan and demonstrated adequate test–retest reliability (0.69) and excellent internal consistency (0.96) in a random sample of pregnant who presented for prenatal examinations at a medical centre in Taipei, Taiwan. The latter, the Chinese version of the FSFI (CVFSFI; Sun et al., 2011), was validated in women who presented at the obstetrics and gynaecology outpatient department of a teaching hospital in Beijing, China. Principal component analysis revealed the same six-factor structure as the original FSFI. Test–retest reliability was good and ranged from 0.82 for the desire domain to 0.92 for the arousal domain. Similarly, internal consistency was good and ranged from 0.86 for the desire and orgasm domains to 0.94 for the pain domain.

The FSFI has also been used in Indian women (e.g., Grover, Shah, Dutt, & Avasthi, 2012; Singh, Tharyan, Kekre, Singh, & Gopalakrishnan, 2009) and has been translated into Tamil (Singh et al., 2009). Although the Tamil version of the FSFI was pilot-tested for linguistic accuracy and cultural appropriateness, no published study has reported on its psychometric properties.

The *McCoy Female Sexuality Questionnaire* (MFSQ; McCoy & Matyas, 1998) is a 19-item self-report measure that assesses a woman's sexual experience over the previous 4 weeks and was designed to assess aspects of female sexuality that are likely to be affected by changing levels of sex hormones during the menopausal transition period. Items are responded to on a seven-point adjectival scale and inquire about overall sexual enjoyment, sexual arousal, sexual interest, satisfaction with partner, feelings of attractiveness, frequency of sexual intercourse, enjoyment of sexual intercourse, frequency of orgasm, pleasure from orgasm, lubrication, pain with sexual intercourse, and the impact of partner's potential erectile difficulties. Establishing the reliability and validity of the MFSQ has been challenging as researchers who have used the MSFQ have tended to omit some items due to cultural sensitivity, researchers' discomfort with specific questions, and the need for brevity (McCoy, 2001). As a result, no data exist on the psychometric properties of the complete MFSQ, although studies that have used abbreviated versions suggest that those versions demonstrate acceptable reliability, good face and content validity, and evidence of construct validity. No published studies have described the use of the MFSQ or its validation in Asian Americans.

The *Profile of Female Sexual Function* (PFSP; Derogatis et al., 2004; McHorney et al., 2004) is a self-administered questionnaire that was developed for the assessment of loss of sexual desire and other sexuality-related symptoms in menopausal women with hypoactive sexual desire disorder. The PFSP consists of 37 items that cover seven domains of sexual functioning—sexual desire, arousal, orgasm, sexual pleasure, sexual concerns, sexual responsiveness, and sexual self-image. Higher scores on the PFSP indicate higher sexual function. The PFSP was translated into seven languages from the original English version and initially validated in about 500 oophorectomized women with low sexual desire in North America, Europe (Germany, UK, Italy, and France), and Australia. Test–retest reliability

ranged from 0.57 to 0.91, and internal consistency ranged from 0.74 to 0.95 for the seven domain scores (Derogatis et al., 2004). No published studies have described the use of the PFSP or its validation in Asian Americans.

The *Sexual Interest and Desire Inventory* (SIDI-F; Clayton et al., 2006; Sills et al., 2005) is a clinician-administered instrument that was created to assess the severity of Hypoactive Sexual Desire Disorder, or changes in the severity of Hypoactive Sexual Desire Disorder in response to treatment, among premenopausal women. It also has a broader conceptualization of sexual desire compared to the FSFI's narrow focus on desire frequency and intensity. The SIDI-F consists of 13 items that assess the domains of sexual satisfaction, sexual receptivity, sexual initiation, frequency of desire, affection, satisfaction with level of desire, distress regarding level of desire, positive thoughts about sex, interest in erotica, frequency of arousal, ease of arousal, continuation of arousal, and orgasm. Higher scores on the SIDI-F indicate higher sexual function. The SIDI-F demonstrated excellent internal consistency (0.90). No published studies have described the use of the SIDI-F or its validation in Asian Americans.

The *Short Personal Experiences Questionnaire* (SPEQ; Dennerstein, Lehert, & Dudley, 2001) consists of nine items and was designed to measure sexual functioning among middle-aged women. The SPEQ was adapted from the MSFQ (McCoy & Matyas, 1998). Items are responded to in a variety of formats and assess the domains of feelings for partner, sexual responsivity, sexual frequency, libido, partner problems in sexual performance, and vaginal dryness/dyspareunia. No published studies have described the use of the SPEQ or its validation in Asian Americans.

Measures applicable to men. The *Brief Sexual Function Inventory-M* (BSFI-M; O'Leary et al., 1995) is a self-report measure that consists of 11 items that cover the domains of sexual drive, erection, ejaculation, perceptions of problems in each area, and overall sexual satisfaction. Response options consist of 5-point adjectival scales, with higher scores indicating better sexual functioning. There are no published studies that have used Asian language translations of the BSFI-M.

The *Chinese Index of Premature Ejaculation* (CIPE; Yuan et al., 2004) was developed in China and is a ten-item Chinese language measure designed to assess the sexual functioning of men with premature ejaculation. Items are responded to on a five-point adjectival scale, with higher scores on the measure indicating better sexual function. The CIPE includes questions about the degree of sexual interest, the frequency of erections hard enough for sexual intercourse, the frequency of maintenance of erections until the completion of sexual intercourse, intravaginal ejaculatory latency, difficulty in prolonging sexual intercourse, sexual satisfaction, partner's sexual satisfaction, frequency of partner reaching orgasm, confidence in being able to complete sexual activity, and frequency of feelings of anxiety, depression or stress during sexual activity. Receiver operating characteristic analysis suggests that a cutoff score of 35 on the CIPE results in 97.6 % sensitivity, 94.7 % specificity, 96.4 % positive predictive value, and 95.6 % negative predictive value. Data on the reliability and validity of the CIPE are not available.

The *Index of Premature Ejaculation* (IPE; Althof et al., 2006) is a ten-item self-report measure that assesses three subjective aspects of premature ejaculation—ejaculatory control, sexual satisfaction, and distress. Items are responded to on five- to six-point adjectival scales. Internal consistency ranges from 0.74 for the control domain to 0.91 for the distress domain and test–retest reliability ranges from 0.70 for the distress domain to 0.90 for both the sexual satisfaction and control domains. There has been no published research on the use of Asian language translations of the IPE.

The *International Index of Erectile Function* (IIEF; Rosen et al., 1997) is a self-report questionnaire that consists of 15 items and covers five domains of sexual function—erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction. Items are responded to on five- or six-point adjectival scales with reference to sexual functioning in the previous 4 weeks. Higher scores on the IIEF indi-

cate better sexual function. There is also a shorter version of the IIEF, the IIEF-5 (Rosen, Cappelleri, Smith, Lipsky, & Pena, 1999), which consists of five items from the IIEF that assess erectile function and intercourse satisfaction.

The IIEF has been translated and linguistically validated in over 30 languages, including Japanese, Korean, Malay, and Chinese, although not all of these translations have been psychometrically validated (e.g., Chinese). The Japanese version of the IIEF was validated in Japan (Shirai et al., 1999). Based on the English-language abstract, test–retest reliability of the Japanese version of the IIEF ranged from 0.51 to 0.79 for patients with erectile dysfunction, and from 0.63 to 0.80 for controls. Unfortunately, as the original article is in Japanese, it was not possible to ascertain whether the authors assessed the internal consistency of their instrument.

The Korean version of the IIEF was validated in a sample of men who presented at an andrology clinic with erectile difficulties and age-matched controls who presented at the department of family medicine at an academic medical centre in Seoul, Korea (Chung et al., 1999). Test–retest reliability ranged from 0.67 for the orgasmic function domain to 0.88 for the overall satisfaction domain and internal consistency ranged from 0.70 for the sexual desire domain to 0.96 for the overall satisfaction domain. The Korean version of the IIEF-5 (Ahn, Lee, Kang, Hong, & Kim, 2001) was validated in men who presented at an andrology clinic in Seoul, and was found to possess high sensitivity (91.3 %) and specificity (86.3 %). Data on reliability were not made available, but this version of the IIEF-5 has been used in a number of studies on the sexual function of Korean men (e.g., Ahn et al., 2007; Choi, Song, & Son, 2012).

There are two Malay versions of the IIEF that were independently developed (Lim et al., 2003; Quek, Low, Razack, Chua, & Loh, 2002). One version (Mal-IIEF) was validated in patients who had lower urinary tract symptoms (Quek et al., 2002). Test–retest reliability was good and ranged from 0.75 for the orgasmic function domain to 0.87 for the sexual drive domain. Internal consistency was also good and ranged from 0.74 for the orgasmic function domain to 0.87 for the sexual drive domain. The other version was validated in two separate studies: one enrolled healthy volunteers from the community and patients presenting at primary care clinics, and the other enrolled patients who had been diagnosed with erectile dysfunction and who were going to undergo a trial of sildenafil therapy (Lim et al., 2003). Both test–retest reliability and internal consistency were high. Test–rest reliability ranged from 0.82 for the orgasmic function and sexual desire domains to 0.89 for the intercourse satisfaction domain and internal consistency ranged from 0.80 for the sexual desire domain to 0.96 for the overall satisfaction domain.

The *Male Sexual Health Questionnaire* (MSHQ; Rosen et al., 2004) is a 25-item self-report questionnaire that assesses the domains of ejaculation, erection, and sexual satisfaction in aging men who have urogenital health concerns. Higher scores on the MSHQ indicate higher sexual function. Internal consistency for all three domains was high in the validation sample, ranging from 0.81 for the ejaculation domain to 0.90 for the erection and satisfaction domains. Test–retest reliability was also high and ranged from 0.86 for the ejaculation domain to 0.88 for the satisfaction domain.

The MSHQ has been translated into Korean and validated in a Korean population (Oh, Lee, & Chung, 2005). The Korean version of the MSFQ was found to have high internal consistency (0.95, 0.90, and 0.93 for the ejaculation, erection, and satisfaction domains, respectively) and high test–retest reliability (0.89, 0.81, and 0.87 for the ejaculation, erection, and satisfaction domains, respectively) and has been used in the assessment of sexual functioning in Korean men with benign prostatic hyperplasia (Lee et al., 2009) and those who have undergone urethrotomy (Choi, Song, Kim, & Moon, 2013).

Conclusion

Like the assessment of most psychological problems in any population, the cornerstone of the assessment of sexual dysfunction in Asian

Americans is the clinical interview, which can be supplemented by self-report measures. However, although a handful of self-report measures of sexual function have been translated into Asian languages and validated in specific Asian populations (most frequently Chinese, Japanese, and Korean), the interpretation of these measures as used in Asian Americans needs to be done with particular caution as overall, empirically validated translations remain lacking. In assessing sexual dysfunction in Asian Americans, it is important for clinicians to bear in mind the general reluctance of Asians to discuss sexual issues and the use of indirect and nonverbal communication in discussing sexuality in Asian cultures. Furthermore, it is important for clinicians to recognize that the assessment may arouse significant discomfort and potential feelings of guilt in the client, and to utilize their clinical judgment to guide the assessment process.

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