Addressing sexuality in women with diabetes

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Women with diabetes may have an increased risk of sexual problems. Sensitive questioning about sexual difficulties and changes, and a multifaceted approach to treatment can help women with diabetes who want to maintain a good sex life.

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Diabetes is Australia's fastest growing chronic disease, with 280 Australians developing this condition every day.[1] For every person known to have diabetes, it is estimated that there is another who has not yet been diagnosed. Diabetes increases the risk of sexual problems in women. As an estimated 3.2 million Australians have diabetes or pre-diabetes, there are potentially more than 1.6 million women who may have their sexual health adversely affected by diabetes, with secondary effects on their personal wellbeing and that of their partners and also their relationships. Certain groups, such as Aboriginal and Torres Strait Islander women, have an even greater incidence of diabetes, and sexuality issues need to be incorporated into their care in a sensitive and culturally appropriate manner.

Women's sexual function is complex. Women's 'erotic plasticity' means they are often able to function sexually without desire or arousal if the activity has other meanings for them, such as keeping the partner or relationship, financial security, family stability, cultural expectations and avoidance of danger.[2] Requirements for 'good enough' sexual function in women are shown in the Figure. Women's sexual function has been less studied than that of men. The results of many of the studies of sexual function in women with diabetes are inconclusive and conflicting, with differences in measurement tools, definitions and sample populations.[3,4] The many confounding variables affecting women's sexuality mean that more large studies are needed.

In our society, the sexual function of older women and women with chronic illness is more likely to be ignored.[5] Therefore, it falls on medical practitioners, both GPs and specialists, to be proactive in protecting the sex lives of women with diabetes.

DIABETES AND FEMALE SEXUAL DYSFUNCTION

Women's sexuality is generally not as robust as men's for a range of reasons:

- lower testosterone levels, which decline more steeply with age than those of men

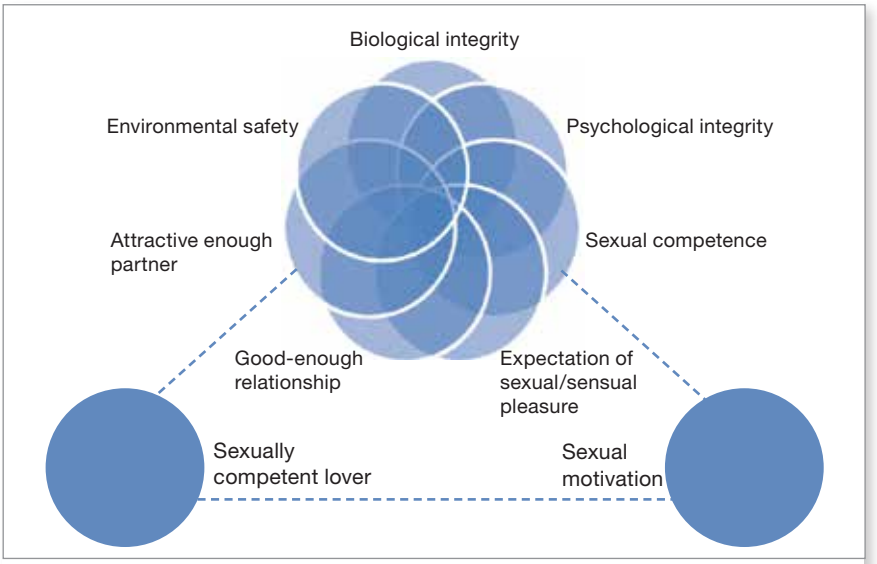

Figure. Requirements for 'good enough' sexual function in women.

- cyclical monthly hormonal variations
- hormonal changes with breastfeeding and menopause
- possibly a lower evolutionary need for rapid onset or pervasive libido.

This lesser robustness can be a problem, as good sexual function is highly valued in our society by many (although not all) women. It is variously reported that female sexual dysfunction (FSD) occurs in 40 to 70% of Australian women.[6-9]

Women with diabetes are susceptible to the same forms of FSD as other women and also have added risks associated with type 1 and type 2 diabetes. Most studies show a higher prevalence of FSD in women with diabetes versus those without diabetes.[10,11] Possible effects of diabetes on women's sexuality are summarised in Box 1.

Primary diabetes risk factors for FSD

Although specific primary diabetes risk factors for FSD have not been clearly identified, extrapolation from studies in men suggests that endothelial damage affecting the vasculature of sexual organs, neurological damage and hormonal effects are the main medical factors. Obesity affects the male testosterone axis and potentially affects female sex hormones. In addition, hypoxia due to obstructive sleep apnoea in obese women with metabolic syndrome may have an impact on FSD; this requires further research.

Trials of sildenafil in women showed a positive response in postmenopausal women with arousal difficulties but good libido.[12] Nevertheless, although anatomical studies have shown the full extent of clitoral erectile tissue responsive to phosphodiesterase type 5 inhibitors, the sexual response of women taking this medication was only minimally enhanced by the increased clitoral engorgement.[12,13]

Psychosocial effects of diabetes

As well as the primary effects of diabetes on the sexual organs, the psychosocial effects of diabetes may be important influences on sexual responses. A study of 540 women, half of whom had diabetes, concluded that diabetes was an independent predictor of orgasmic dysfunction, but depression, individual perception of sexual needs and partner-related factors were stronger predictors of FSD.[9] Furthermore, women with type 2 diabetes had a higher risk of FSD than women with type 1 diabetes, a finding repeated in other studies.[14,15] The presence of comorbidities, duration of diabetes, diabetic complications or poor glycaemic control were not found to be moderators of FSD. The strongest predictors of FSD were depressive symptoms, the importance of sex to the woman and satisfaction with the partner as a lover.[16] The association between depression, antidepressant and antipsychotic medication and FSD is well documented. For example, a cohort study of women with type 1 diabetes found that those with depression were twice as likely to have FSD as those who were not depressed.[17]

The multidimensional nature and feedback loops of female sexuality have been highlighted by many sexologists.[18-20] Women can engage in sexual activity from a nonlibidinal position. For example, if a woman finds sexual activity with a partner meaningful, for whatever reason, this can be motivation to allow herself to be enticed into sexual behaviour. Once sexual stimulation begins, with a competent lover and reasonable physiological integrity then arousal may follow and then libido. It is not commonly understood that libido may not be the starting point of sexual activity for many women. Moreover, women can feel satisfying emotional and physical pleasure in lovemaking even when the experience does not start with desire or end in orgasm.

Obesity

Obesity is a common comorbidity of type 2 diabetes. Research has shown that increasing body mass index negatively affects women's self-esteem and decreases sexual functioning, particularly arousal and sexual behaviour.[21-24] Obesity and lack of fitness and flexibility inhibit body exposure and restrict movement and the positions that are feasible and comfortable during lovemaking. Metabolic syndrome/obesity, cardiometabolic risk factors, diabetes and coronary heart disease are associated with a higher prevalence of FSD.[25] As previously mentioned, studies show that women with type 2 diabetes have more FSD than those with type 1 diabetes.[26,27] Furthermore, in parallel with the 'obesity epidemic', the number of women with gestational diabetes mellitus is growing worldwide.[25]

However, it is not clear whether this is increasing the burden of FSD.

MANAGEMENT OF SEXUAL PROBLEMS IN WOMEN WITH DIABETES

Patient assessment

The most important aspect of management of sexual problems in a woman with diabetes is to review her as an individual, taking into account her unique medical history, her personal and relationship history and her sexual history. Introducing general, open questions about sexual satisfaction and function during routine reviews creates the space to explore sexual difficulties and changes. Questions such as 'I routinely ask my diabetes patients if they are experiencing any sexual difficulties or changes, as we know there is an increased risk of this happening. Have you had any difficulties you would like to talk about?' will help open this area of dialogue.

Sexuality may not be a current issue for the patient, but asking the question creates an opportunity to explore this important area of wellbeing and also conveys that you are open to dealing with these issues if they become a problem in future. In addition, we know that erectile difficulties in men can be an early warning of cardiovascular disease.[28,29] Whether loss or decrease in lubrication can be a clinically useful determinant in women is yet to be seen.

Type 1 diabetes

Women with type 1 diabetes may experience a sexual maturation experience different from that of healthy women (Box 1). Parents can become protective and infantilise the girl as she reaches puberty and beyond. Prevention of normal dating/sexual experimental experiences and denial of access to sexual information may stunt sexual development. Shyness around genitals, increased incidence of genital and urinary tract infections and medicalisation may result in a negative genital self-image. Sensitive exploration of these issues, education and encouragement to explore and experience positive sexual experiences are important steps.

Type 2 diabetes

Women with type 2 diabetes are often older, have established their sexual identity and formed relationships. Diabetes as a chronic illness may affect them differently as it changes already expected behaviour patterns of sexuality in the relationship (Box 1).

Tiredness and depression are common in women with diabetes and may further negatively impact sexuality and quality of life. Longevity of the relationship has been shown to be 'sex-negative' for some women, with loss of erotic behaviours and feelings, complacency between partners and stored resentments. This further severely affects libido. Increased genital and urinary tract infections causing pain and need for medicalisation generate anxiety about the genitals being a source of attractiveness and pleasure and the possibility of more infections with sexual activity. Menopausal symptoms can further compound age- and diabetes-related effects in women whose sexual function is not robust.

Exploring sexual problems

Personality is crucially important as it determines how a woman copes and adjusts to changes. Sexual activity is not important to everyone, and this has to be sensitively determined. Many older couples with long-standing relationships relax into a more affectionate sensual rather than sexual relationship, and this needs to be validated. It is important not to make people feel guilty because they are not having sex. The sexual needs of single women also need to be considered and it should not be assumed that a woman is not sexual if she does not have a partner. Many women enjoy masturbating and want this to continue and be enjoyable.

Potential sexual problems that need to be explored for women with diabetes include:

- decreased or absent desire for sexual activity
- decreased or absent arousal resulting in decreased vaginal lubrication leading to dyspareunia and genital and urethral infections
- decreased arousal leading to anorgasmia, difficulty reaching orgasm or decreased sensation of orgasm
- decreased genital sensations.

1. POSSIBLE EFFECTS OF DIABETES ON THE SEXUALITY OF WOMEN

Primary effects

- Endothelial damage
- Neurological damage
- Possible hormonal effects

Secondary effects

Type 1 diabetes

- Effects of chronic disease before development of sexual identity
- Parental protection preventing normal sexual learning
- Repeated genital infections and medicalisation of genitals
- Shame about having diabetes
- Fear of hypoglycaemia
- Partner's response to woman having diabetes

Type 2 diabetes

- Changes from past functioning affecting self-esteem
- Changes of chronic illness affecting sexual relationship
- Tiredness
- Depression
- Other health issues
- Genital infections
- Older population: peri- and post-menopausal changes
- Older partners with sexual difficulties and health issues

Treatment of sexual problems

The multiplicity of confounding factors in women's sexual functioning make a simplistic approach to evaluation and treatment impossible. All avenues need to be addressed, including:

- medical intervention with improved diabetic control
- hormone supplementation
- mental health improvement
- lifestyle management with weight

loss, exercise and greater life enjoyment
- relationship communication skills and management
- changes in lovemaking style and techniques to improve and compensate for losses in sexual functioning.

Changes in lifestyle factors such as diet and exercise are difficult to introduce and maintain but are extremely important. In women with type 2 diabetes, greater adherence to the Mediterranean diet is associated with a lower prevalence of FSD.[30]

Sex therapy

Sex therapy can be a helpful avenue for women (alone or with their partner) when they experience changes in their sex life. Being able to speak to someone about your own sex life openly and honestly and having the opportunity to be reassured or given advice on improving the situation is really appreciated by most people. Few of us have had a good sex education – that is, an education that taught us how to get the best out of our sex lives despite age and illness-related changes, relationship effects, and so on.

The main sexual issues that need to be covered include:
- use of lubricants from the first genital touch
- increase in sexual and relationship enhancers (such as fun joint activities and holding hands) and decrease in the inhibitors (negative factors such as belittling and very short foreplay)
- increase in foreplay stimulation
- use of vibrators to compensate for sensory loss
- Kegel's exercises (at least 100 per day, every day) to strengthen pelvic floor muscles, which need sufficient capacity to contract to allow an orgasmic response
- broadening the scope for erotica in the relationship.[31,32]

If good sex is wanted then it has to be good recreationally – fun, amusing, stimulating, with occasionally a little tension, and some variety and novelty. Erotica is very personal and the discussion has to be addressed sensitively within the woman's or couples' frame.

CONCLUSION

Good sexuality is important to many women's sense of self and wellbeing, and many women who have enjoyed a good sex life are sad at losing an aspect of themselves that they have valued. 'Good enough' sex is also important for the wellbeing of relationships as we know that couples who stop making love and are angry about it usually cease affectionate intimate contact, share less recreational fun activity and have increased disagreement. To help patients who want to have a good sex life with their current sexual function is part of good holistic care. If time restrictions or lack of interest or experience are barriers then referral to a specialist sexuality health practitioner is an option. MT

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A list of references is included in the website version (www.medicinetoday.com.au) and the iPad app version of this article.

COMPETING INTERESTS: Dr Redelman is a speaker for Lilly and Menarini.

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