Sexual wellbeing for people with chronic obstructive pulmonary disease: relevance and roles for physiotherapy

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ABSTRACT

Chronic obstructive pulmonary disease (COPD) is the fifth leading cause of disability worldwide. The purpose of this article is to provide an overview of current knowledge on sexual wellbeing in people with COPD, with particular attention to the possible role of physiotherapy in helping address problems with sexuality resulting from the condition. People with COPD experience more sexual problems on average than the general population, with these issues arising from hormonal, physiological, psychological, sociological and pharmaceutical factors. Physiotherapists can provide specialist support for people with COPD regarding their sex lives through the provision of exercise therapy, advice on positioning to maximise breathing efficacy and minimise energy expenditure during sexual activity and via patient education on chronic condition management. The PLISSIT model provides a robust framework for helping physiotherapists clarify their scope of practice when engaging with people who have COPD on matters to do with sexuality. Regardless of age or severity of symptoms, people with COPD are capable of leading full and satisfying sex lives should they wish to do so. Physiotherapists can contribute information and solutions to support them in this endeavour.

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Key words: Pulmonary disease, Chronic obstructive; Sexuality; Sexual dysfunction; Dyspnoea; Exercise

INTRODUCTION

Sex is an important part of life, self-identity and general wellbeing for the majority of people. It is well established that many adults maintain sexually active lives well into their older years (Lindau et al 2007, Matthias et al 1997, Nicolosi et al 2004). While sexual activity and sexual interest do tend to decline with age, even very elderly people can enjoy sex and include it as part of their intimate relationships. One relatively recent US study found that 38.5% of men and 16.7% of women in the 75-85 year old age group had participated in sexual activity with a partner in the previous year, with 54% of those who were sexually active engaging in sexual activity more than two or three times a month (Lindau et al 2007).

At all ages, however, sexual activity and sexual satisfaction is negatively influenced by poorer health status (Lindau et al 2007, Matthias et al 1997). This has been the subject of a body of research, guidelines and systematic reviews for a number of conditions including cardiovascular disease (eg Steinke et al 2013), diabetes (eg Pontiroli et al 2013, Vardi and Nini 2007), and cancer (eg Miles et al 2007). Arguably less research or clinical guidelines have been published on the topic of sexual health for people with chronic obstructive pulmonary disease (COPD). In preparing this paper, only one randomised controlled trial (Svartberg et al 2004) and no systematic reviews were identified on the topic of management of sexual dysfunction for people with COPD. This is significant because, according the World Health Organizations' Global Burden of Disease study, COPD is currently the 5th ranked cause of years with disability worldwide (Vos et al 2013) – a more significant contributor to years with disability in fact than ischaemic heart disease (ranked 21st), diabetes (ranked 9th) or all cancers (ranked below 25th). Furthermore, there is growing evidence that COPD is frequently associated with sexual dysfunction for many people (Collins et al 2012, Fletcher and Martin 1982, Kahraman et al 2013, Kaptein et al 2008, Karadag et al 2007, Köseo˘glu et al 2005, Schönhofer et al 2001, Schouten et al 2007) but as noted above there appears to be very little experimental research into strategies to help people with COPD deal with issues related to their sexual wellbeing.

The purpose of this paper, therefore, is to provide an overview of current knowledge on sexual dysfunction and sexual health in people with COPD, with particular attention to the possible role of physiotherapy in helping people with COPD maintain or regain an active and enjoyable sex life should they choose to do so. It is argued within this paper that physiotherapy has the potential to make a unique contribution to this area of clinical practice because of expertise in chronic condition management, exercise conditioning and use of positioning to enhance the efficiency of breathing in people with COPD.

Definitions and assumptions

Sexual activity should be considered a broad term referring to a wide range of personal interactions and behaviours including, but not limited to, sexual intercourse. For the purposes of this paper, a modified version of a definition promoted by Lindau et al (2007) will be used: specifically, the term 'sexual activity' (to be considered synonymous with 'sex') will be used to refer to 'any mutually voluntary activity with another person that involves sexual contact, whether or not intercourse or orgasm occurs or any solitary sexual self-stimulation for pleasure'. Neutral terminology has been used throughout this paper regarding sexual orientation, except in situations describing research studies that specified the gender of people in relationships under investigation. Specific issues relating to transgender people, however, are outside the scope of this paper due to restrictions on article length.

Prevalence of sexual dysfunction in people with COPD:

The majority of empirical research on sex and COPD to date has focused on the prevalence of sexual dysfunction in COPD populations. Sexual dysfunction can include problems with erectile dysfunction or premature ejaculation in men; difficulties with vaginal lubrication for women; or lack of interest in sex, inability to achieve orgasm, pain during sex, anxiety about performance or sex not being pleasurable for either men or women.

In men with COPD, erectile dysfunction (i.e. difficulty getting or maintaining an erection) has been identified as one of the most common problems with sexual performance. Estimates of prevalence of erectile dysfunction in men with moderate to very severe COPD have ranged from 72% to 87% (Collins et al 2012, Kahraman et al 2013, Karadag et al 2007, Köseoğlu et al 2005). This can be compared to a prevalence of 9-22% for erectile dysfunction that has been reported in the 50-70 year old age group in a large, international, population-based study of sexual dysfunction (Laumann et al 2004, Nicolosi et al 2004). Some of these differences in reported prevalence could be explained by differences in the categorisation and measurement of erectile dysfunction. However, studies which have compared men with COPD against age-matched controls (using the same measurement tool for both) have also found significant differences in prevalence between these groups. Kahraman et al (2013) found varying degrees of erectile dysfunction in 79% of 70 men with COPD in comparison to 56% of 68 age-matched controls, with men who had COPD generally reporting more severe problems. Similarly, comparing 95 men with stable moderate-to-severe COPD to 30 age-matched controls, Karadag et al (2007) found 21% of those with COPD to have 'severe' erectile dysfunction and 36% to have 'moderate' erectile dysfunction versus 10% of the controls for both 'severe' and 'moderate' erectile dysfunction. Furthermore, in a population-based study of erectile dysfunction in the Netherlands involving 975 men aged 50-75, COPD was found to be one of five independent determinants for risk of erectile dysfunction (Schouten et al 2007).

In comparison to age matched norms, significantly more men with COPD have also been found to report reduced sexual desire and lower frequency of sexual intimacy; with their sexuality more often negatively influenced by low self-esteem and with an overall lower sense of satisfaction with their sex lives (Kaptein et al 2008). Collins et al (2012), in a study of 90 men with stable moderate-to-severe COPD, found 74% had at least one sexual problem. In additional to erectile dysfunction, many of these men also reported lack of sexual interest (37%), inability to achieve orgasm (42%), and difficulty with finding sex pleasurable (28%). Furthermore, these issues were most often described as 'very much of a problem' or 'somewhat of a problem' for these men (Collins et al, 2012).

In comparison, sexual dysfunction in women with COPD has yet to be investigated in depth. One exception has been a study of sexual dysfunction in people with COPD or asthma, in which ten women with COPD provided information on their experiences and feelings regarding sexuality and intimate relationships (Kaptein et al 2008). This study found that, when compared to age-matched controls, women with COPD reported a significantly lower frequency of sexual intimacy, but no significant differences were reported for other aspect of sexuality, eg physical problems reducing sexual desire, problems with self-esteem influencing sexual activity or problems with general sexual satisfaction (Kaptein et al 2008). However, given the very small sample size, it is highly questionable whether this study was sufficiently powered to detect such differences if they existed.

One additional study has investigated sex behaviour and sexual functioning in 383 men and women who used noninvasive mechanical ventilation in the home. This study combined findings from people with COPD (45% of the total study population; 173/383) with those who had chronic respiratory failure due to other causes (Schönhofer et al 2001). Thirty-four percent of these respondents reported being sexually active and 61% were not (5% did not answer this question). Sexually active people were more likely have better lung function (higher vital capacity, better force vital capacity, and higher partial pressure of oxygen in arterial blood at rest), were more likely to be married or have a partner and were more often younger. However, no statistically significant differences were noted between men and women in this study; both groups were equally likely to be sexually active at all ages.

Notably, in this study, while older people were less likely to be sexually active, 20% of those over 70 years on noninvasive mechanical ventilation still reported continuing to have an active sex life (Schönhofer et al 2001). Furthermore, while 36% of respondents reported a decrease in their sexual activity after initiating home-based mechanical ventilation, 12.6% of respondents reported their sexual activity had increased as a result of the introduction of ventilatory support. In other words, it is a mistake to assume age or severity of respiratory impairment necessarily limits people's capacity or enthusiasm for sexual activity.

Returning to the subject of gender differences, it has been suggested that COPD presents less of a problem for female sexuality than male sexuality. One view is that male sexual activity is generally more dependent on health status than female sexual activity, and that for women, 'the existence of a sexually interested partner and a pleasurable sexual biography are even more important' (Schönhofer et al 2001, p.1612). Another view has been that male sexuality is more vulnerable to dyspnoea and loss of self-esteem resulting from impaired physical performance (Pietropinto and Arora 1989). However, it is important to note that all of these viewpoints and perspectives have arisen from expert opinion and anecdote; detailed studies on the effect of COPD on women's sexuality have yet to be conducted.

Causes of sexual dysfunction in people with COPD:

The interaction of variables contributing to sexual dysfunction in people with COPD is complex, but broadly speaking problems can arise from a combination of hormonal, physiological, psychological, sociological and pharmaceutical factors.

Hormonal factors

With respect to hormonal issues, it has been established that men with COPD have lower total testosterone levels than men without COPD. A recent systematic review involving a meta-analysis of data from nine case control studies found that men with COPD have on average 3.21 nmol/L (95% CI 1.23 to 5.18 nmol/L) less total testosterone than age-matched men without COPD (Atlantis et al 2013). Testosterone contributes to muscle mass and the body's response to exercise, but is also directly

associated with sexual functioning in men. In Collin et al's (2012) observational study, adults with COPD who had low free serum testosterone levels were over three times more likely to have erectile dysfunction than adults with COPD who did not have low testosterone levels.

Physiological factors

COPD is also of course associated with reduced exercise capacity secondary to hypoxaemia, dyspnoea and general physical deconditioning. This too can be a reason for problems with sexual functioning (Karadag et al 2007, Schönhofer et al 2001, Steinke 2013). If a person is becomes too breathless or fatigued during sexual activity, or finds his or her limited exercise capacity worrying, embarrassing or disempowering, then difficulties both with sexual arousal and sexual performance can result. Sexual intercourse is often compared to an exercise workload of 3-4 metabolic equivalents (METS) (Collins et al 2012, Steinke et al 2013). One MET is defined as the amount of oxygen consumed while sitting at rest: specifically 3.5 ml of oxygen per kg of body weight per minute of activity (Jette et al 1990), with 3-4 METS being equivalent to walking on a treadmill at 5-7 kph (i.e. a brisk walk). For this reason, in people with heart disease (where concerns can exist regarding the likelihood of sexual activity causing a myocardial infarct) individuals are usually advised that if they can achieve an energy expenditure of ≥ 3-5 METS on formal exercise testing without exhibiting symptoms of ischaemia, then it should be very safe for them to resume their normal sexual activity (Steinke et al 2013).

One of the original studies that is often cited to justify this figure of 3-4 MET is an observational study involving ten healthy, married couples, aged 25-43, in which heart rate and oxygen consumption were measured during sexual intercourse (Bohlen et al 1984). In fact, in this study, physiological responses were recorded only for the male partner, and the figure of 3-4 METs was only achieved during the penetration and orgasm stages of sex if using the 'man-on-top' position for intercourse. Other types of sexual activities, however, were associated with lower maximum energy expenditure: an average of 1.4 METs (95% CI 1.2 to 1.6 METs) during foreplay; 1.7 METs (95% CI 1.3 to 2.1 METs) during orgasm when the woman was stimulating the man without intercourse; 1.8 METs (95% CI 1.5 to 2.1 METs) during orgasm when the man was stimulating himself without intercourse, and 2.5 METs (95% CI 1.8 to 3.1 METs) when having intercourse in the 'woman-on-top' position (Bohlen et al 1984)[1]. The figure of 3-4 METs therefore is conservatively high, appropriate to use perhaps when advising people about risk of myocardial infarct, during sex, but potentially misrepresentative of the level of exercise capacity that is necessarily required for an enjoyable sexual encounter. For this reason, de Araújo (2009) has suggested that instead of using the analogue of a 'brisk walk', sexual activity could be more usefully compared to 'a relaxed walk for a few blocks, interspaced by ascending one or two flights of stairs at moderate and, most importantly, at a very much individual pace' (p.1034).

Along with exercise deconditioning, people with COPD are also more vulnerable to changes in oxygenation as a result of changes in body position. In COPD, the position of the body (eg supine lying, prone lying, sitting or standing) can influence the position and mechanical efficiency of the diaphragm, the availability and mechanical efficacy of accessory muscles for breathing, the synchronicity of thoracic and diaphragmatic movements, the energy (and therefore oxygen) required to maintain the position, and, particularly significantly, ventilation/perfusion matching (Cavalcanti et al 2014, Dean 1985, Heijdra et al 1994, Jones et al 2003). Ventilation/perfusion matching refers to the efficiency and adequacy of air in the alveoli (ventilation) reaching lung tissue that is sufficiently serviced by blood from the pulmonary artery (perfusion). Of note, the physiological response of individual people with COPD to changes in body position can be very idiosyncratic; influenced by factors such as degree of hyperinflation, asymmetry in lung tissue damage, the presence of sputum in the airways, distribution of body mass and state of arousal or relaxation.

As an illustration of this point, the only observational study to date on the effect of sexual activity on gas exchange in the context of COPD (albeit based on a single case study) reported the unexpected finding that, rather than dropping, oxygen saturation rose during sex, peaking during the 10 minute period after intercourse (Polverino et al 2008). The 'case' in this study was a 63 year old man with severe but stable COPD, engaging in sex in 'comfortable' positions. The authors of the study speculated that oxygen saturation may have risen during sex for this man because the positions used (in this case, standing or in the 'woman-on-top' position) resulted in improved ventilation/perfusion matching in comparison to breathing at rest, without significant additional energy expenditure for muscle activity. However, as noted above, cardiorespiratory responses to body position can differ for individual people with COPD, which means that sex positions that work for one couple may not be suitable for another. Individual assessment of physiological response to different body positions may be warranted.

Psychological and sociological factors

In addition to physiological consequences of lung disease, COPD is also associated with psychological and sociological responses which can negatively influence sexual interest, arousal and behaviour. Collins et al (2012), for instance, suggested that physical limitations arising from COPD may make men take a much more passive approach to sexuality or to avoid sexual activity altogether. They also reported that, despite continuing to desire an active sex life, the most commonly perceived reasons for decreased sexual activity among the 90 men with COPD in their study was the participants' belief that they were 'too old' or 'too sick'. For both men and women, symptoms of COPD such as breathlessness, coughing and sputum can contribute to feeling unattractive and to loss of self-esteem, which can affect both attitudes towards sex and physical responses during it (Steinke 2013). Fear and anxiety about dyspnoea can result in stress associated with sexual activity, reducing enjoyment and willingness to participate in it (Steinke 2013). Mood disorders such as depression, which are known to be significantly more of a problem for people with COPD than the general population (Di Marco et al 2006, Schneider et al 2010), can also negative impact on sexual desire and performance.

Furthermore, changes in a person's physical body and sexual performance often require couples to develop a renewed understanding of their sexual roles and relationship. This requires open, honest and caring communication. If either

[1] Average METs and 95% CI were calculated from the means and standard deviations for oxygen consumption (VO_2) for sexual activity reported in Bohlen et al (1984), using the conversion value of 1 MET to 3.5mL/min/kg VO_2.

or both partners within a couple are unable or unwilling to discuss such matters, sexual wellbeing can suffer. In one unique study of COPD and intimate relationships, Ibáñez et al (2001) interviewed 49 men with severe COPD and their partners (all female) separately but concurrently. Sixty-seven percent of the men reported some type of sexual dysfunction, mostly involving less-than-preferred sexual desire or erectile dysfunction; while 94% of their female partners reported noticing changes in the men's sexual behaviour. Thirty-three percent of the women also reported that they had noticed negative changes in their partners' communication levels since the onset of COPD and/or home oxygen use, with the women who reported such communication problems being significantly more likely to be dissatisfied in their partners in general than those who did not. Of note, fear of causing an exacerbation in their husband's condition appeared to have resulted in over a third of the women reducing their willingness to engage in sexual activity in this study population.

Pharmaceutical factors

Outside the scope of physiotherapy, but still important to know about, is the influence of pharmaceuticals on sexual functioning. A number of drugs can contribute to sexual dysfunction in both men and women. Medications commonly known to reduce sexual desire or sexual performance include diuretics and beta-blockers for high blood pressure; anti-depressant, anti-anxiety, and anti-psychotic medication for mental health conditions; anti-epileptic drugs; steroidal medications such as prednisone; and some medications for Parkinson's disease and cancer treatments (Collins et al 2012, Conaglen and Conaglen 2013, Schouten et al 2007). As COPD is frequently associated with co-morbidities, the possibility that people with COPD may be on medications such as these needs to be taken into consideration.

Incorporating sexual wellbeing in physiotherapy for COPD

Even when physiotherapists agree that sexual function is an important area of health and wellbeing, making decisions about how to include it (if at all) as a subject for clinical intervention or patient education can be difficult. Like all health professionals, physiotherapists can feel poorly equipped to address sexuality in clinical practice, can have concerns about making their clients uncomfortable or feel uncertain about the ethical implications associated with broaching the topic of sex in the clinic or hospital.

One useful framework for guiding health professionals when integrating interventions for sexual wellbeing into regular practice is the PLISSIT model. Originally proposed as a guide for sex therapists in the 1970's (Annon 1976), the PLISSIT model has subsequently been applied in a range of different health contexts (Jaarsma et al 2010, Marsden and Botell 2010, McBride and Rines 1999, McLeod and Hamilton 2012). It has been promoted as a model appropriate for interprofessional teams (Dunn 1997), and already been used in at least one New Zealand rehabilitation service for this purpose (Simpson et al 2006).

PLISSIT is a mnemonic which stands for permission (P), limited information (LI), specific suggestions (SS), and intensive therapy (IT). These four terms relate to four levels of engagement that a health professional can take with any client when considering the topic of sexual functioning and wellbeing. They also correspond to increasing levels of intimacy when discussing sexuality in the clinical setting and so can be used to align a health professional's level of training, scope of practice and degree of comfort in discussing sexual matters with the type and extent of involvement in interventions for addressing sexual health needs.

Within this model, 'permission' refers simply to letting patients and their partners be aware that it is perfectly acceptable and appropriate to raise questions or express concerns regarding issues to do with sexuality. This can be done overtly or covertly. Indirect methods for giving permission might include having information brochures on sexual health and COPD visible and accessible in waiting rooms or clinic areas. Direct methods might include validating sexuality as a legitimate topic for discussion if it should arise during clinical interaction, or by specifically inviting people to raise it for discussion. For example, if a patient were to make a half-joking reference to 'problems in the bedroom' when discussing respiratory symptoms, the physiotherapist could respond by saying: 'yes, sexual function is something that can be affected by COPD, and this might be something you would like to discuss further with me or your general practitioner (GP)'.

Giving a person permission to raise issues to do with sexual function does not mean that physiotherapists are then required to address those issues in full by themselves. If the subsequent issues raised are more specific than the physiotherapist is able to deal with, a suitable response would be to say: 'Yes, that is a valid concern. However, what you are discussing is outside of my particular training. Would you like me to raise this in a referral letter to your GP or respiratory consultant?' The potential benefit of simply normalising sexuality as a valid topic for discussion in the health context should not be underestimated.

'Limited information' is the next level of engagement with patients on matters to do with sexuality. It involves giving general information about sexuality and sexual function, tailoring this information to specific health conditions where appropriate. This includes, for instance, providing education on sexuality to groups of people as part of a pulmonary rehabilitation programme or providing general information to individuals in a clinical session, drawing on standard information brochures or letting people know about other clinical or information services relevant to sexuality that are available to them.

Providing limited information stops short of discussing individual people's actual sex life and instead couches sex interventions within the context of general information that has been helpful for many people in similar kinds of situations. Within the context of an interprofessional team it is usually ideal that all team members are sufficiently comfortable with the topic of sexual health, and with their own sexuality, to work with any patients at the 'permission' and 'limited information' level of the PLISSIT model (Sipski and Alexander 1997).

At the 'specific suggestion' stage of the PLISSIT model, assessment of issues and provision of interventions occurs at the individual patient level. In terms of physiotherapy, this might including making recommendations regarding positioning to minimise dyspnoea and maximise body movements with minimum energy expenditure during sex. It might also involve advice regarding management of home oxygen and ventilators to support sexual activity. Generally speaking, this level of engagement with patients and their partners is likely to require some degree of postgraduate training and should be accompanied by close professional supervision.

The 'intensive therapy' level of the PLISSIT model refers to the type of professional input that is usually only provided by trained relationship counsellors, sex therapists, or physicians. It might include 'psychotherapy; intensive or prolonged marital relationship counselling; counselling and therapy for battering, sexual abuse, or rape; surgical or invasive procedures… or medical management of infertility; childbirth; hormonal imbalances; or severe behavioural or psychiatric problems' (Dunn 1997, p. 398). As such, this level of engagement with patients and their partners is useful to know about, but is generally outside the scope of practice of physiotherapists, except for a few specific topics within specialist areas (eg perhaps within women's health physiotherapy).

Interventions for sexual dysfunction for people with COPD: For the purpose of this paper, interventions for sexual dysfunction can be divided into those that can be provided by physiotherapists and those which need input from other specialist health professionals. In terms of physiotherapy, interventions for improving sexual satisfaction for people with COPD might include:

Advice on cardiorespiratory training to improve general exercise capacity (with exercise also potentially resulting in improved mood and self-esteem);

Training of people with COPD in sputum clearance techniques (eg postural drainage and active cycle of breathing), with advice to use these techniques prior to engaging in sexual activity so as to minimise coughing and maximise lung capacity during sex;

Advice regarding use of bronchodilators, where these have been prescribed, prior to engaging in sexual activity;

Advice regarding fatigue management, including preparing for sexual activity through use of relaxation techniques and by picking times when feeling well rested;

Assessment and training of people with COPD in the use of positioning to maximise ventilation/perfusion matching, maximise capacity for movement with minimum energy expenditure and minimum dyspnoea during sexual activity;

Encouraging people with COPD and their partners to talk to one another about their changing bodies, what they find easy or difficult to do, what they still find pleasurable and enjoyable and to explore new ways of physically interacting with one another for pleasure;

Reminding people the full range of sexual activities that are open to them, reinforcing the notion that sexual activity is not just limited to intercourse, but can involve other activities too, such as kissing, cuddling and touching (activities which are not only enjoyable in themselves, but which can also be a good way of building up tolerance for other activities in the future).

In terms of positioning for sexual intercourse, there are a number of factors likely to contribute to increased dyspnoea for people with COPD and so should be avoided, particularly if respiratory symptoms are severe. These include lying completely flat in supine, being in a position that requires high levels of energy expenditure to maintain (eg sustaining a prone lying position, propped up on arms, such as when lying on top of one's partner), having a weight (eg one's partner) on one's chest, or prolonged activities involving the mouth (eg prolonged kissing or giving oral sex). Figure 1 provides examples of some sexual positions that have been reported to be effective for people with COPD (Polverino et al 2008, Stitik and Benevento 1997).

People with COPD and their partners can be encouraged to make use of aids to reduce the physical demand of sexual activity. This includes making use of sex toys such as vibrators (which can be privately purchased online) as well as medical devices to reduce the work of breathing. If using supplementary oxygen or ventilators at home, people with COPD should be encourage to use these during sex too, adjusting ventilators settings to compensate for increased breath frequency and tidal volumes within comfortable limits (Schönhofer et al 2001).

Outside the scope of physiotherapy are medical interventions to compensate for sexual dysfunction. These include, for instance, the use of phosphodiesterase inhibitors (eg Sildenafil citrate; sold as Viagra), hormonal therapy in the case of hypogonadism (Svartberg et al 2004), or vacuum pumps and penile implants to treat erectile dysfunction (Hackett et al 2008). Psychosexual counselling, relationship counselling and cognitive behaviour therapy interventions may also be helpful for dealing with psychological and social issues related to sexual functioning (Steinke 2013), although access to these type of therapies may be restricted by cost. While not directly involved in the provision of these interventions, physiotherapists can play a role in raising the possibility of them to people with COPD.

CONCLUSIONS

A pleasurable and satisfying sex life is important to many people with COPD regardless of age or severity of impairments. Factors contributing to problems with sexual functioning are complex and interrelated, but in the presence of COPD sexuality can be affected by hormonal dysfunction, exercise deconditioning, exertional dyspnoea, the psychological and sociological consequences of having a chronic condition and by the side-effects of common medications. Physiotherapy has a role to play in the management of problems with sexual function in COPD, providing guidance in the restoration of exercise capacity, the use of positioning to maximise efficiency of breathing and movement and in the everyday management of respiratory disability.

KEY POINTS

- A pleasurable and satisfying sex life is important to many people with COPD regardless of age or severity of impairments.
- COPD can have a negative influence on sexuality due to hormonal, physiological, psychological and social consequences of the disease.
- Physiotherapy can play an important role in helping people with COPD and their partners deal with issues to do with sexuality.
- The PLISSIT model provides a framework to help physiotherapists decide what level of involvement they should have regarding interventions for improving a person's sexual wellbeing.

Figure 1: Sex positions for people with COPD and their partners

Figures 1a-1d provide examples of sex positions reported to be effective for people with COPD. While only one of the partners in these illustrations is presented as having COPD, these positions are suitable if either partner has COPD. People with COPD should be encouraged to make use of pillows during sex for comfort, to elevate parts of the body and to support limbs.

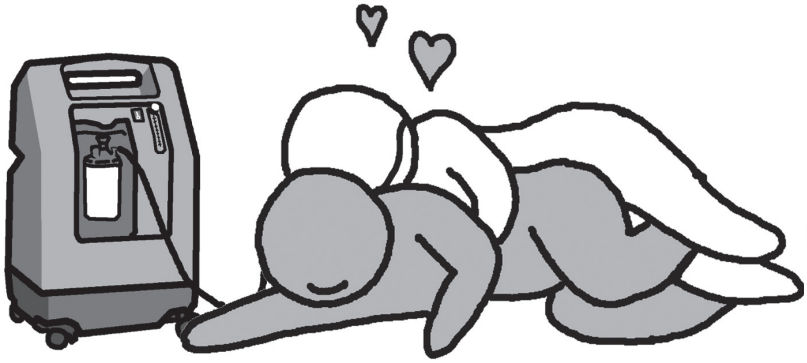

Figure 1a: Side lying

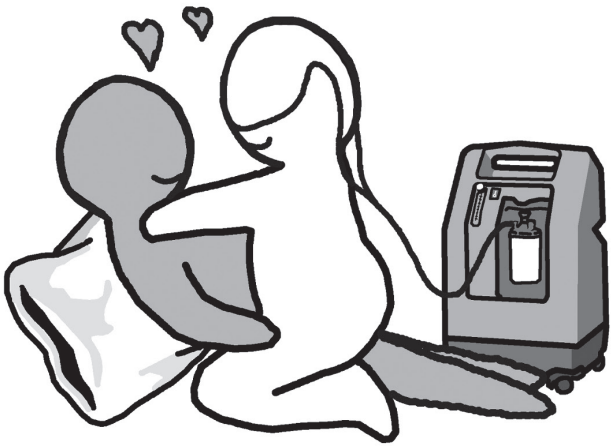

Figure 1b: Recline lying

Figure 1c: Standing

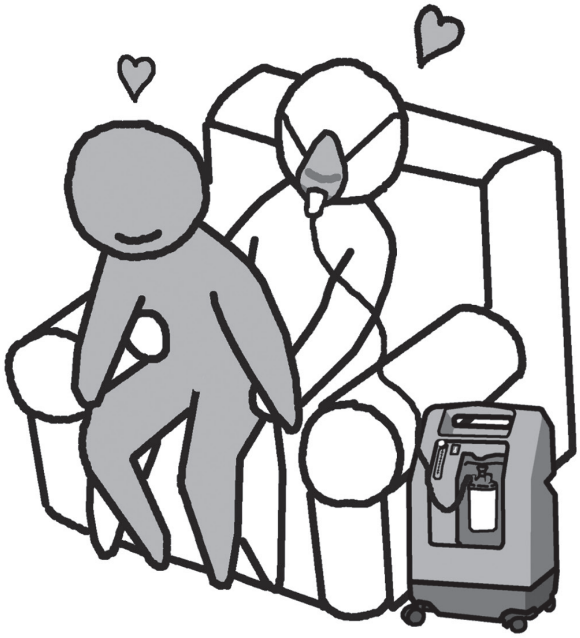

Figure 1d: Seated

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