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Sexuality in patients with asthma and COPD

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Summary
Sexual quality of life was examined in 55 outpatients with chronic obstructive pulmonary disease (COPD) and asthma, using disease-specific questionnaires. Compared to an age- and sex-matched norm group, male patients with COPD reported a significantly lower sexual quality of life on all dimensions of the questionnaire. Female patients with COPD reported a lower frequency of sexual intimacy and lower sexual quality of life overall. Patients with asthma reported sexual quality-of-life scores that were somewhat better than COPD patients but worse than the healthy control group. Patients reported that they did not discuss sexual quality-of-life issues with their physician. Sexuality needs to be discussed by the health care provider in the consultation in order to improve quality of life of patients with chronic respiratory disorders.
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Introduction

While quality of life has become an accepted outcome measure in medical care for patients with asthma and chronic obstructive pulmonary disease (COPD), sexuality is a topic that has rarely been studied in these patient groups, and it has not been incorporated into quality-of-life measures for asthma and COPD patients. A Pub Med search (25 September 2007) produced 13 hits in the search 'COPD and sexuality' and 53 for asthma and sexuality. In comparison, the system listed 339 hits for 'breast cancer and sexuality' and 211 for 'myocardial infarction and sexuality'. Only one questionnaire on quality of life in patients with asthma and/or COPD includes questions about sexuality (QOLRIQ).[1]

The few empirical studies on sexuality in patients with COPD indicate that patients report major difficulties in

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sexual quality of life and sexual functioning. In a study of 53 COPD outpatients, it was found that 76% of patients reported erectile dysfunction in varying degrees of severity, dependent on pulmonary function.[2] The percentage of people who reported being sexually active was markedly reduced in patients with chronic respiratory failure on noninvasive mechanical ventilation compared to the normal population.[3] Limitations in sexual functioning and problems regarding sexuality are acknowledged and addressed in some publications on pulmonary rehabilitation programmes.[4] However, compared to the attention in the media, patient organizations, and medical and behavioural research for sexuality in patients with breast cancer, HIV/AIDS, and myocardial infarction, sexuality in patients with COPD is an 'under-researched' area.[5,6]

Sexuality has been the subject of research somewhat more frequently in patients with asthma than in COPD patients. Two large empirical studies are available. Maillé et al. investigated quality of life in asthma patients from general practice, outpatient department, and rehabilitation centre settings and found that personality factors and severity of the respiratory disorder were associated with social activities, relationships, and sexuality.[1] A sample of asthma patients at an emergency department asked to identify their five most important limiting activities, mentioned sexual limitation, after climbing upstairs and doing housework.[7]

In most studies involving asthma and COPD patients, sexual problems have been conceptualized rather mechanically as sexual dysfunctions (e.g., erectile dysfunction).[8] More recently, patient reported outcomes have become part of quality assessment and assurance in care for COPD patients,[9,10] and the assessment of sexuality has been broadened to perceptions and feelings about sexuality and partners. In line with this broader conceptualization, the aim of this study with a descriptive design was to investigate the perceived consequences of asthma and COPD on sexuality and on the interaction between the patient and his/her partner.

Method

Patient selection

Patients with asthma and COPD were identified from the respiratory medical outpatient department. Inclusion criteria were a diagnosis of COPD or asthma, according to GOLD and GINA criteria, respectively,[11,12] age between 21 and 75 years, and living in a heterosexual relationship. Exclusion criteria were a history of diabetes or heart failure, which was verified in the patients' files. One hundred and eighteen patients met the inclusion criteria and were invited to participate by phone and mail. Nineteen patients did not respond to the invitation and 33 patients reported being no longer sexually active. Out of 66 questionnaires sent out, 11 patients returned questionnaires with missing data. Therefore, the final sample consisted of 55 patients. The respiratory physician provided the most recent pulmonary function data (within the past year), and current medication regime categorized as: none, inhaled bronchodilators, inhaled bronchodilators and corticosteroids. The study was approved by the Medical Ethical Committee of the LUMC. Descriptive data on these patients are presented in Table 1.

Table 1 Background characteristics of patients ($n = 55$).

	COPD		Asthma	
	Male	Female	Male	Female
N	15	10	13	17
Age ($\pm$SD)	59 (9)	54 (9)	49 (16)	48 (14)
FEV_1 (% pred.)	56 (18)	62 (19)	71 (20)	79 (16)
Medication				
None	0	0	0	1
BD	2	1	3	5
BD and ICS	13	9	10	11

BD—bronchodilators; ICS—inhaled corticosteroids; FEV_1 (% pred.)—forced expiratory volume in 1 s as a percentage of predicted.

Outcome measures

A booklet containing two questionnaires, the Intimate Physical Contact Scales (IPCS)[13] and the Respiratory Experiences with Sexuality Profile (RESP),[14] was used to assess sexual consequences of asthma and COPD. The booklet also asked for sociodemographic data on age, sex, and educational level.

The IPCS contains nine subscales that assess patients' perceptions about various aspects of their sexual life (see Figure 1 for summary labels of the nine subscales). These subscales assess the negative effects of an illness on the desire to have intimate physical contact (Phys: higher scores represent more impact of the illness), frequency of sexual excitement (FoE: (m = male, f = female), higher scores represent more frequent excitement), frequency of intimacy (FoI: higher scores represent more frequent intimacy), interest respondents attach to intimacy for good sex (AoI: higher scores represent a stronger interest), interest respondents attach to excitement for good sex (AoE: higher scores represent a stronger interest), negative self-image impairing sexuality (Self: higher scores represent higher impact of negative self-image), low esteem for partner interfering with sexuality (Partner: (m = male, f = female), higher scores represent higher impact of low appreciation of partner), general assessment of partner (GAP: higher scores represent higher appreciation), general sexual satisfaction (GSS: higher scores represent more satisfaction).

The RESP was developed on the basis of clinical observations[14,15] (see Table 2). The interpretation of the four items is straightforward: in items 1 and 2, a score 'often' is negative and a score 'never' is positive. In items 3 and 4, a score 'often' is positive and a score 'never' is negative. The four items are not summed; they reflect the responses to the four individual items.

Statistical analysis

Normative data on the IPCS on various samples from the Dutch population are available.[13] *T*-tests for independent

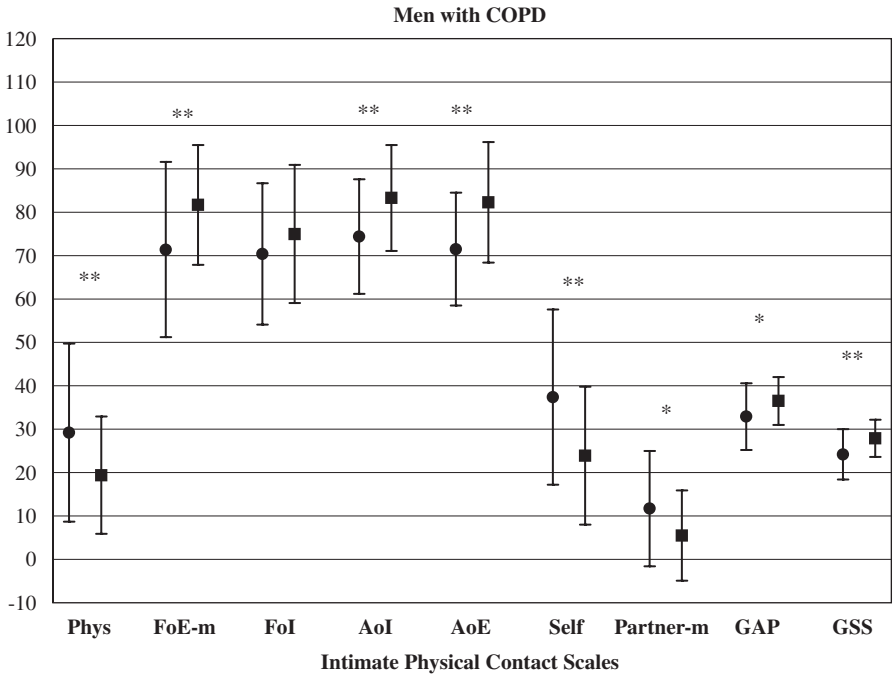


Figure 1 Mean scores (±SD) of the male patients with COPD on Intimate Physical Contact Scales as compared to norm group. ●, patient group; ■, norm group. Phys, physical problems influencing sexual desire; FoE-m, frequency of excitement (for men); FoI, frequency of intimacy; AoI, appreciation of intimacy; AoE, appreciation of excitement; Self, low self-esteem interfering with sexuality; Partner-m, low esteem for partner interfering with sexuality (for men); GAP, general assessment of partner; GSS, general sexual satisfaction. *$p<0.05$, **$p<0.01$.

samples were used to examine differences between the two samples. Data were analyzed using SPSS version 14.0 (Chicago, IL).

Results

The 30 patients with asthma were slightly younger than the 25 patients with COPD and had a slightly better pulmonary function. Both groups had been prescribed bronchodilators and inhaled corticosteroids as medication (see Table 1).

The sexual quality-of-life scores of the patients with COPD are shown in Figure 1 for males and Figure 2 for females with COPD.

Compared to age- and sex-matched norm groups (i.e., healthy Dutch adults, $n = 300$),[13] male COPD patients reported significantly poorer scores on eight of the nine IPCS dimensions. They reported more physical problems that negatively influence sexual desire, a lower frequency of sexual excitement and intimacy, a lower appreciation of intimacy and excitement, that low self-esteem interfered with their sexuality more, they evaluated their partner as less attractive, and reported lower GSS.

Women with COPD differed on only one scale from women without COPD: female patients reported a lower frequency of sexual intimacy. Their scores on the other IPCS dimensions indicated similar differences as found in the male COPD patients. However, the differences were not statistically significant (there was a trend in the scale 'FoE' ($p = 0.069$), with female COPD patients reporting a lower score).

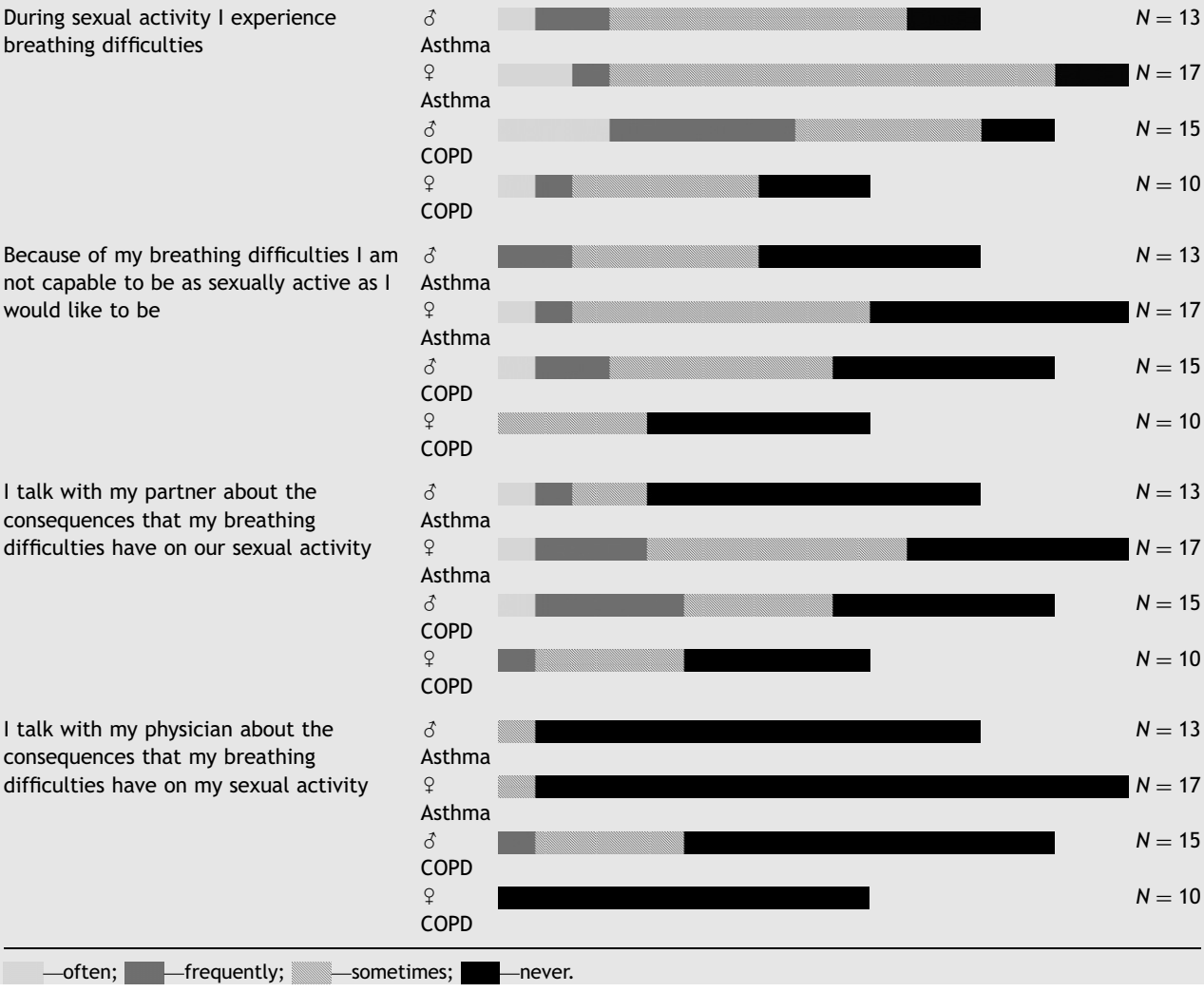
Male patients with asthma reported more physical problems with a negative influence on sexual desire, and lower appreciation of sexual excitement, with a trend ($p = 0.062$) towards a lower appreciation of intimacy (Figure 3). Female asthma patients reported significantly more problems on almost all IPCS scales, except for 'low esteem for partner interfering with sexuality' and 'GAP' (Figure 4).

The responses to the four questions of the RESP are depicted in Table 2, detailing responses of the male and female patients, in the respective diagnostic categories. The results show in particular that sexuality is not a topic that is commonly discussed between patients and care providers.

Discussion

This study is one of the few empirical studies into the experiences of asthma and COPD patients with regard to their sexuality. The results showed that male COPD patients reported significant reductions in sexual activity and impairment in satisfaction about their sexual life. Female COPD patients appeared to experience fewer problems and limitations. Women with asthma, on the other hand, reported problems and limitations in almost all domains, while male asthma patients appeared to be better able to manage their sexuality. An explanation may be that asthma patients know that symptom-free episodes are not usually associated with limitations in sexuality. COPD patients realize that their symptoms are permanent, making a more accepting coping strategy adaptive. Obviously, the degree of lung impairment is different between these two diagnostic groups, but, since pulmonary function in our sample is not

Table 2 Responses of asthma and COPD patients on the RESP questions.



associated with scores on the questionnaires, it would appear that psychosocial characteristics (e.g., social support, coping behaviour, satisfaction with the patient–physician interaction) are more important determinants of sexual quality of life.

The results on the RESP clearly illustrate that a substantial proportion of patients with asthma or COPD perceive major problems in the sexuality domain. Twenty-nine percent of patients reported experiencing breathing difficulties during sexual activities often or frequently. Sexual problems were not often discussed with the partner (78% of all patients reported 'sometimes' or 'never'), and even less often with their physician (11% reported 'sometimes' 87% 'never'). Despite the high prevalence of sexual dissatisfaction amongst patients with respiratory illness, fewer than one in seven patients had talked about sexuality with their physicians. One possible explanation is that both patients and physicians find sexual difficulties an uncomfortable topic to discuss.[16] However, research suggests that discussion of sexuality can be helpful. Patients with breast cancer feel encouraged and supported when the physician discusses sexuality after breast cancer treatment[17]; this is also true for patients who have undergone radical prostatectomy.[18] To promote greater discussion of sexuality with patients who have (chronic) illness, lessons on how to discuss sexual problems need to be incorporated into the medical curriculum. In addition to medical management of sexual dysfunction and sexual problems,[8,19] self-management for asthma and COPD patients needs to include the broader notion of sexuality as a subject.[20]

Research on sexuality in patients with other chronic physical disorders has found similar results. For example, a need has been identified to address potential sexual problems related to chemotherapy in women undergoing breast cancer surgery.[21] A recent study on patients' sexuality after stoma surgery demonstrated major negative consequences for self-esteem and body image.[22] It should be emphasized that age in itself is no determinant of limitations in sexuality. A recent study in older healthy adults demonstrated that many older adults are sexually active.[23]

Given the reported substantial decreases in sexual functioning by patients with respiratory illness, more

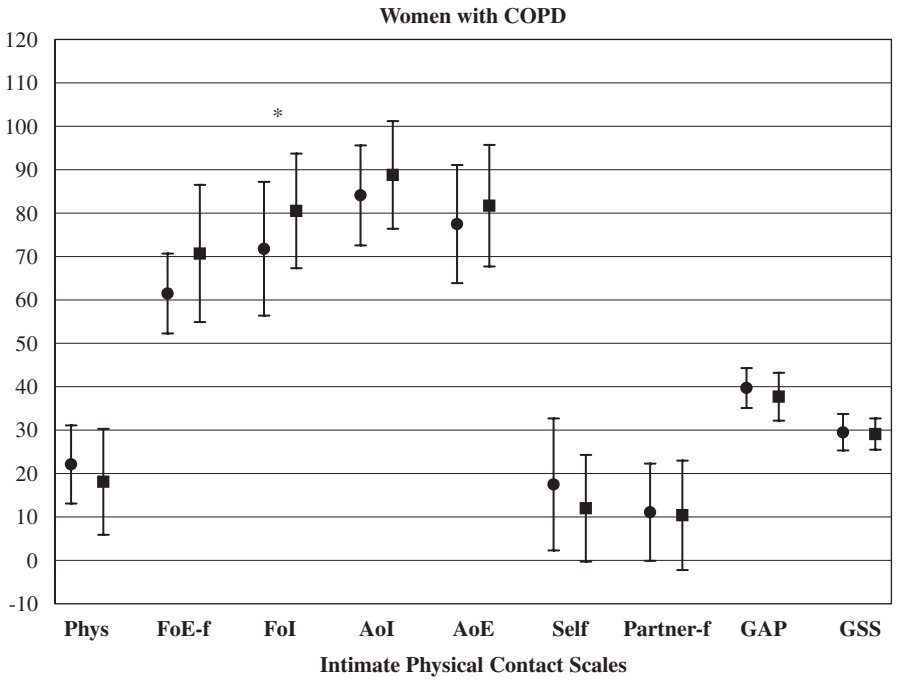


Figure 2 Mean scores (±SD) of the female patients with COPD on Intimate Physical Contact Scales as compared to norm group. ●, patient group; ■, norm group. Phys, physical problems influencing sexual desire; FoE-f, frequency of excitement (for women); FoI, frequency of intimacy; AoI, appreciation of intimacy; AoE, appreciation of excitement; Self, low self-esteem interfering with sexuality; Partner-f, low esteem for partner interfering with sexuality (for women); GAP, general assessment of partner; GSS, general sexual satisfaction. *$p<0.05$, **$p<0.01$.

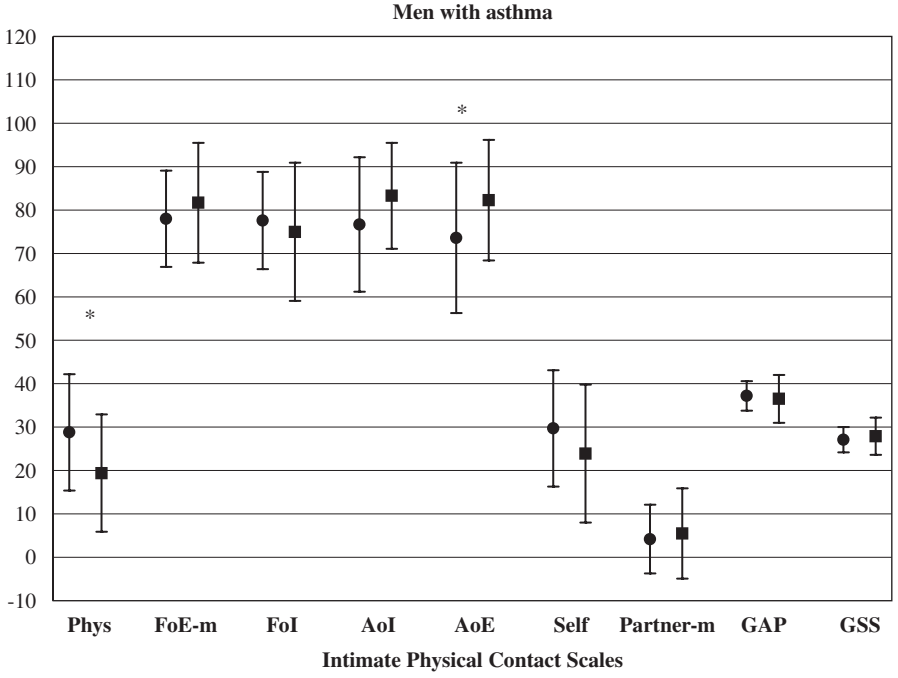


Figure 3 Mean scores (±SD) of the male patients with asthma on Intimate Physical Contact Scales as compared to norm group. Legend: see Figure 1.

research is needed in this area. We emphasize that this study refrained from asking patients about sexual activities per se, e.g., we did not ask how often the patients had intercourse or experienced orgasm. Our study set out to examine *perceptions of sexuality* in patients with asthma and COPD (cf. Ref. 24). In this sense, sexual quality of life, sexual functioning, and satisfaction with sexual life all make up perceptions of sexuality—a concept worth

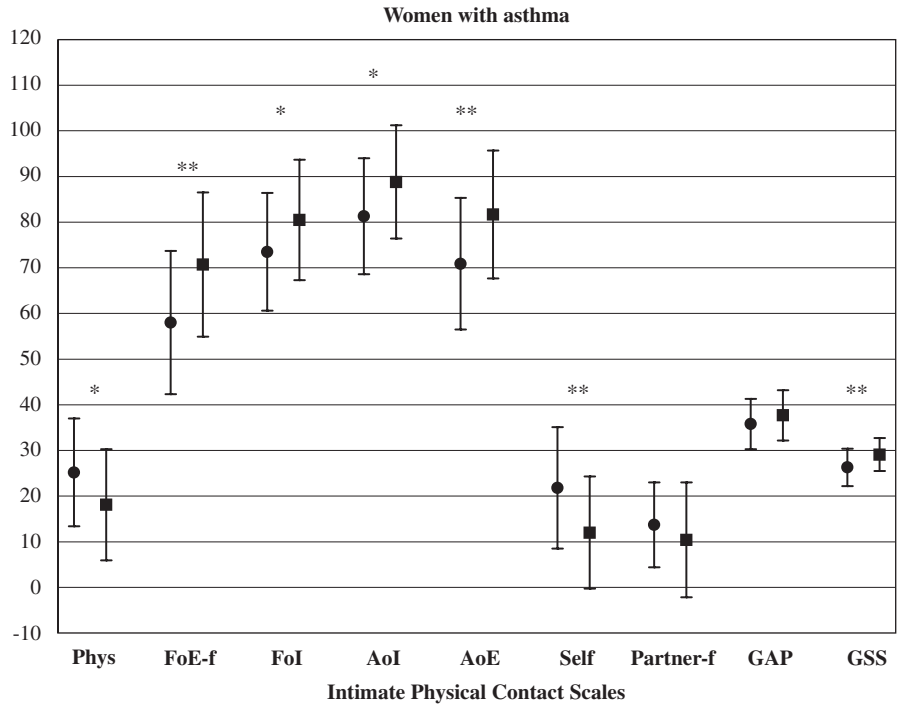


Figure 4 Mean scores (±SD) of the female patients with asthma on Intimate Physical Contact Scales as compared to norm group. Legend: see Figure 2.

incorporating in medical care for patients with asthma and COPD.

Over the past decades, quality of life has grown into an important and clinically relevant outcome measure, and interventions for asthma and COPD patients often assess changes in quality of life. It is now time for disease-specific instruments to assess sexual experiences and problems in patients with respiratory disorders, in order to include those measures routinely into self-management programmes. One may ask, for instance, whether the RESP should be routinely part of the clinical interview. We maintain that it would be a highly relevant research question to examine the pros and cons for patients and physicians of including such a concise questionnaire into the clinical encounter. Given that sexual quality of life is most often assessed with questionnaires, developing a concise interview that could be used in the patient–physician consultation might provide a user-friendly method of obtaining more valid information about the perception of sexuality in patients with chronic respiratory disorders.[25] This may help promote physician discussion of sexual issues and more comprehensive improvement in quality of life for patients with chronic respiratory disorders.

Conflict of interest statement

None of the authors has a conflict of interest to declare in relation to this work.

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