

Identifying barriers to help-seeking for sexual dysfunction in Multiple Sclerosis

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Abstract

Background: Sexual dysfunction (SD) is common in multiple sclerosis (MS), however under-reported.

Objective: The aim of this study was to identify barriers faced by patients with MS and healthcare professionals (HCPs) in discussing SD.

Methods: This was a two-part prospective study carried out at a tertiary care centre. Patients with MS were surveyed using a 29-item questionnaire and SD was assessed using the MSISQ and ASEX questionnaires; depression screened with PHQ-2. HCPs were surveyed using a 23-item questionnaire.

Results: 74 patients (mean age 42.4 ± 10.7 , 54 females) and 98 HCPs (mean age 45.8 ± 8.9 , 90 females) participated. SD was significant, with primary (36.4%), secondary (27%) and tertiary (29.8%) contributory factors. Commonest barriers reported by patients were dominance of neurological symptoms (N=30, 40.5%), presence of family or friends (N=28, 37.8%), and not being asked (N=25, 33.8%), while HCPs reported presence of family or friends (N=34, 34.7%), lack of knowledge about SD (N=30, 30.6%), and inadequate time during the consultation (N=27, 27.6%).

Conclusions: Barriers to discussing SD are similar between patients and HCPs. The most common barriers are addressable through modifications in the clinic environment, raising awareness and providing training opportunities.

Key words: Sexual dysfunction, barriers, healthcare professionals, multiple sclerosis, questionnaires, help-seeking

Introduction

Sexual dysfunction (SD) is commonly reported in multiple sclerosis (MS). Reported rates range between 50% to 90% in men, and 40% to 80% in women [1]. In the multidimensional model of SD, primary (changes in sexual functions due to lesions in nervous system), secondary (caused by neurological disability such as fatigue and spasms, or bladder/bowel incontinence) and tertiary (emotional and psychosocial changes as a result of MS) factors contributing to SD have been identified [2]. SD has been shown to correlate with duration and severity of disease [3], neurological deficits [4], lesion distribution on magnetic resonance imaging (MRI) [5], as well as the presence of brain atrophy, quality of life (QoL) [6] and depression [7]. Treatment strategies exist for managing SD and interventions have been shown to be associated with an improvement in symptoms and QoL [8].

However, screening for SD remains low and SD is often under-diagnosed in clinic [9]. Reasons for this are unclear, however barriers to discussing SD are likely to exist. Studies in chronic medical illnesses have identified different barriers to a discussion including too little time for a discussion, feeling the patient isn't ready, as well as lack of knowledge, awareness, confidence or training amongst healthcare professionals (HCPs) [10] and low level of awareness of later life sexual health issues [11]. Many of these barriers can be addressed. Reluctance of patients in initiating a discussion about SD may arise from a variety of reasons such as a perception that HCPs may not be sufficiently experienced or mature to explore their problems, feelings of shyness and embarrassment, age and gender issues [12].

Patients with neurological disease and their HCPs are likely to be experiencing similar barriers towards discussing SD, however the additional aspect of chronic neurological disabilities and their management is likely to predominate during hospital visits. They are likely to be experiencing symptoms, however these are not being addressed because of non-disclosure. The aim of this study was to identify barriers experienced by patients and HCPs. Recognising these barriers to help-seeking would help to facilitate the discussion of potentially amenable symptoms.

Materials and Methods

This was a two-part prospective cross-sectional study carried out at a specialist tertiary care teaching hospital over six months. This service evaluation was reviewed and registered with the divisional Quality and Clinical Governance Department. Validated questionnaires evaluating barriers to discussing SD are lacking, and therefore a literature search of studies evaluating barriers faced by patients and HCPs to discussing sexual dysfunction was performed using the search

engine Pubmed of studies published in the English language till 2013 using the key words “sexual dysfunction”, “attitudes”, “healthcare professionals”, “multiple sclerosis”, “quality of life”, and “questionnaires”.

Part 1 - Survey of patients with MS

A bespoke 29-item questionnaire included possible barriers that were identified in the literature search [13]. Patients were asked to rate the relevance of the different barriers using a 5-point Likert scale (strongly disagree/ disagree/ neither agree or disagree/ agree/ strongly agree) (Supplementary Material 1). Space was provided for free text to add any additional factors that were perceived as being barriers but not listed in the questionnaire. The Arizona Sexual Experiences Scale (ASEX), a validated 5-item questionnaire which evaluates different domains of SD using a 5-point Likert scale [14], and the Multiple Sclerosis Intimacy and Sexuality Questionnaire (MSISQ), a validated 15-item questionnaire which assesses primary, secondary and tertiary factors that contribute to intimacy and sexual dysfunction specifically in MS using a 5-point Likert scale, were also administered [2]. The Patient Health Questionnaire – 2 (PHQ – 2) was included to screen for depressive symptoms using a 4-point Likert scale [15]. Onset of SD and possible sources of help to address the problem, as well as co-morbidities such as lower urinary tract (LUT) and bowel symptoms, cardiovascular disease, gynaecological problems, and medication-use were enquired. The questionnaire was reviewed by five patients with MS attending the outpatient clinic and amended according to the feedback received.

Consecutive patients with MS between the age 16 and 65 who were sexually active, and attending the Uro-Neurology out-patient clinic and Queen-Square Multiple Sclerosis Centre were invited to participate and complete the anonymised questionnaire. Questionnaires were handed in to one of the investigators or returned in the post using pre-stamped envelopes.

Patients reporting a history of a significant psychiatric disorder, MS relapse in the previous 4 weeks, substance abuse, or women either pregnant or having attained the menopause were excluded from the study.

Part 2 - Survey of HCPs

A bespoke 23-item questionnaire included possible barriers that were identified in the literature search [10,16]. HCPs were asked to rate the relevance of the barriers using a 5-point Likert scale (strongly disagree/ disagree/ neither agree or disagree/ agree/ strongly agree) (Supplementary Material 2). Space was provided for free text to add any additional factors that were perceived as being barriers but not listed in the questionnaire.

The questionnaire was reviewed by 11 HCPs and amended according to the feedback received. The questionnaire was uploaded onto an online survey portal ([SurveyMonkey.com](https://www.surveymonkey.com)) and was sent by email to 300 HCPs consisting of consultants, nurses, and physiotherapists on the electronic mailing list of the Multiple Sclerosis Trust who are involved in the care of MS patients.

Data was analysed using IBM SPSS Statistics, Version 14 (Armonk, NY: IBM Corp.) for descriptive statistics, and frequency tables. Student's t-test was used to analyse perceived barriers according to gender.

Results

Part 1 - Survey of patients with MS

Seventy-four patients with MS (72.97% females (N=54)) participated in the study, mean age 42.4 ± 10.7 years (range 21 - 64). 70.3% (N=52) had relapsing remitting MS, 12.2% (N=9) secondary progressive MS, 10.8% (N=8) primary progressive MS, and 1.4% (N=1) progressive relapsing MS. Mean duration of disease was 9.8 ± 8.1 years. Patients reported the following co-morbidities: lower urinary tract (LUT) symptoms 63.5% (N=47), previous history of surgery 51.4% (N=38), bowel problems 43.2% (N=32), high blood pressure 10.8% (N=8), high cholesterol 9.5% (N=7), diabetes mellitus 5.4% (N=4), gynaecological problems 5.4% (N=4) and breast disease 1.4% (N=1).

16 (21.6%) patients had discussed SD with a HCP and 9 (12.2%) reported receiving help. The mean ASEX score was 3.4 ± 0.3 and 24.3% (N=18; females: N=11 (20.37%), males: N=7 (35%)). According to MSISQ, 36.4% (N=27) reported primary factors, 27% (N=20) secondary, and 29.8% (N=22) tertiary factors contributing to SD (Table 1).

According to the PHQ-2 [15], features of depression were noted in 23.0% (N=17) patients, including little interest or pleasure in doing things (N=11, 14.86%; females N=7 (12.96%), males N=4 (20%)) and feeling down, depressed or hopeless (N=15, 20.27%, females N=9 (16.66%), males N=6 (30%)). Patients with higher scores on the MSISQ more often reported depressive symptoms on the following domains: muscle tightness or spasms ($p=0.023$), bowel symptoms ($p=0.021$), feeling of being less masculine or feminine due to MS ($p=0.027$), fear of being rejected sexually because of MS ($p=0.008$), worries about the inability to sexually satisfy the partner ($p=0.002$) and lack of sexual interest or desire ($p=0.003$).

All patients reported at least one barrier and the barriers are listed in order of prevalence in Table 2. Additional barriers listed by patients were uncertainty how the nurse/ doctor would engage in a deeper discussion on bisexuality in a lesbian, gay, bisexual, and transgender (LGBT) relationship (n=1), attaining the menopause (n=1), perception that sexual problems were not issues discussed beyond a certain age (n=1), perception that doctors were embarrassed or unsure about

discussing sexual problems (n=1), impact of sexual dysfunction on the spouse (n=1) and the impact of fatigue on sexual performance (n=1).

Patients preferred the following sources for seeking help: consultants (N=43, 58.1%), nurses (N=39, 52.7%), GPs (N=38, 51.4%), MS charities (N=28, 37.8%), another person with MS (N=20, 27%), physiotherapist (N=18, 24.3%), junior doctor (N=10, 13.5%), the internet (N=10, 13.5%), friends or relatives (N=10, 13.5%).

Part 2- Survey of HCPs

98 HCPs participated in the survey (91.8% (N=90) females, mean age 45.8 ± 8.9 years) and comprised of nurses (N=82, 83.7%), consultants (N=7, 7.1%), therapists (N=4, 4.1%) and others (N=4, 4.1%). Mean duration since primary qualification was 23.3 ± 9.6 years.

All HCPs reported at least one barrier and these are listed in order of prevalence in Table 3. There were no significant differences in perceived barriers between male and female HCPs.

HCPs with more years of experience reported more confidence, awareness and knowledge when dealing with sexual issues. Their perception of the prevalence of sexual problems increases with years of experience, and they are more likely to initiate the conversation, discuss and follow a structured approach (Supplementary Material 3).

Barriers perceived by patients were compared with barriers perceived by HCPs (Tables 2 and 3) and proposals to address the same are provided (Table 4).

Most barriers were reported with similar prevalence. Barriers that were significantly more reported by patients were the perception of being pointless to raise SD as there was no treatment ($p=0.000$), age gap between patient and HCP ($p=0.000$) and perception that SD is not an MS-related problem ($p=0.000$). Barriers that were significantly more reported by HCPs were presence of family or friends in the consultation room ($p=0.043$), fear of appearing to be inappropriate ($p=0.001$) and fear of offending ($p=0.000$).

Discussion

The study aimed to evaluate perceived barriers to discussing sexual problems in an unselected take of patients affected by MS and HCPs involved in the care of patients. Through identifying barriers we hope to help address this potentially solvable issue [17]. Different dimensions of SD were explored and primary factors were found to be contributing to SD most commonly, followed by tertiary and secondary factors. Depressive symptoms were present in a substantial number of patients, and was associated with greater degree of SD, as well as with the presence of tertiary factors contributing to SD, followed by secondary and primary factors. Despite the high prevalence of SD reported in MS, SD was addressed

in only a small number of patients at this tertiary-level teaching hospital, and was smaller than from previous studies elsewhere [13].

A few studies have evaluated barriers to discussing SD in different populations of HCPs and patients, and include the perception of general practitioners when seeing patients with cardiac disease, in cardiology practice [10,16], in the primary care setting [18], amongst patients with MS [13], amongst neurosurgical doctors when seeing patients with spinal disease [19], patients with type 2 diabetes patients [20], patients with cancer [21,22], oncology nurses [23], and amongst patients with low back pain [24]. Possible barriers were selected following a review of these studies, and very few participants indicated additional barriers in the free text box, suggesting that barriers experienced are similar across different diseases. All patients and HCPs in the study recognised at least one barrier to discussing SD. Most barriers were reported with similar prevalence, and the order of prevalence was similar between the two groups. Several barriers were identified, however none were reported in more than 50% of the respective group. One of the commonest barriers reported by patients was not being asked about sexual problems. It has been previously demonstrated that bladder and bowel symptoms were being ignored by medical staff [25], and the results of this study suggests this extends to sexual dysfunction as well.

The presence of family or friends in the consultation room was frequently cited both by HCPs (n=34, 34.7%) and patients (N=28, 37.8%) as a barrier. The need for privacy is an important consideration when discussing this intimate problem, and is a consistent finding in different studies [26,27]. Often a carer, friend or relative accompanies the patient which makes the topic difficult to address. Presence of family and friends was a barrier reported by women and men, however in a sizeable number (N=17, 23%) presence of another HCP in the room was also a barrier, indicative of the intimate nature of the conversation.

The limited time available in a consultation results in a prioritisation of symptoms for discussion. Previous studies have demonstrated that assessment of pelvic organ complaints are limited by time constraints and staff workloads, since clinic visits can be lengthy and pelvic organ complaints are not necessarily the primary aim of the visit [25]. 29.7% of the patients indicated that addressing sexual difficulties was a priority and therefore it would be appropriate to incorporate within the consultation a period of time without accompanying carers, partners or friends, where intimate matters could be addressed. Possibly using symptom check-lists filled in before the appointment so that HCPs are aware about the different symptoms that need to be discussed could help address this issue. Alternatively, the conversation may need to be staggered over several consultations to accommodate time to discuss this intimate topic, or joining up a doctor-led and nurse-led clinics so that sufficient time is available.

Patients perceived that SD is not an MS-related problem and perceived age gap as a barrier compared to HCPs. HCPs should be aware of this and should strive to initiate the conversation whenever possible. Initiating the conversation on SD is beset with uncertainty however, not being asked was a barrier reported by 33.8% (N=25) of patients. For a sizeable number, patient is expecting that the HCP should be initiating the discussion. Only 6% of patients have ever discussed their concerns with a medical professional or undergone sexual therapy [28]. Introducing the topic involves giving permission to the patient to bring up the topic through open-ended questions. The PLISSIT (permission, limited information, specific suggestions and intensive therapy) model which facilitates a structured approach to addressing SD has been advocated as a framework to help HCPs address the problem of sexual dysfunction [29]. As the initial step, giving permission to the patient to discuss SD in itself is quite helpful for both patient and HCP to help initiate the discussion, and to then take this further according to the requirements of the patient [29]. Being a sensitive matter, the discussion could be initiated around bladder and bowel complaints as a way of entry, to then bring up a discussion thereafter about more intimate problems such as sexual difficulties [30].

More often women rather than men felt a discussion about SD was pointless. This reflects the current availability of treatment options regarding management of SD which are much more established in men than women [31,32]. However, options for managing sexual dysfunction in women do exist and women should be aware where such information can be accessed. Greater awareness amongst patients that SD can occur as a result of MS or its related disability would help considerably to dispel notions and myths about SD, but also to help patients become more confident about addressing the topic. Patient information days and leaflets available through reputable organisations such as MS charities are an important resource for patients to utilise.

In clinical practice, poor communication with the HCP has been highlighted as a significant barrier to seeking help for SD. Absence of knowledge, confidence and comfort was previously reported in HCPs as barriers to the discussion about sexual functions [21]. 55% of males and 39% of female patients with MS were able to discuss their sexual difficulties with their health care professionals (HCPs) and low satisfaction rates were reported [13]. Lack of knowledge was cited by more than 30% of HCPs and could be addressed by improving knowledge and training in the evaluation and management of SD through study days and short spells of observer-ships in specialist units, training sessions in communication, and providing opportunities for further exposure in addressing sexual dysfunction and providing a framework for discussion according to the PLISSIT model [33,34]. HCPs with more years of experience seem more skilled in addressing SD, however due to small sample size and lack of statistical power further statistical analysis could not be performed.

Contrary to our expectations, only a small number of patients and HCPs reported language, religious, or cultural factors and gender as barriers to a discussion. The survey did not capture information about cultural and religious factors that could influence a discussion on SD [35], however the study was carried out at a centre that caters to a large multi-ethnic population. This would need to be evaluated in further studies.

The absence of a validated questionnaire to evaluate barriers necessitated designing a questionnaire based on the known barriers from the literature. The questionnaires were however reviewed by patients and HCPs, respectively, before use. Nevertheless, these results from a sizeable number of patients and HCPs provide preliminary information about possible barriers. The questionnaires should be validated so that a standardised assessment is possible across different centres and different neurological conditions. The validated questionnaire would serve to enhance awareness of the problems identified in this study. Future studies should be designed to explore in-depth these barriers to help-seeking perceived by patients and HCPs. Thematic based interviews in the framework of a qualitative study would allow a comprehensive assessment of ways to address these different barriers. The results may not be generalisable across different societies as the perception of barriers is likely to be culturally influenced. Future studies should explore similarities and differences in perceived barriers across different populations.

In conclusion, several barriers to help-seeking for SD were identified, and these contribute to the under-reporting of this significant problem. Modifications in the clinic environment, raising awareness about SD amongst patients and providing training opportunities for HCPs will help address these different barriers, and thereby help narrow the treatment gap for this potentially amenable problem.

This prospective service evaluation was approved and registered with the Queen Square Division Quality and Clinical Governance Department.
On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Table 1. Contributory factors to SD and their prevalence according to the MSISQ

Primary	Total N(%)	Females N(%)	Males N(%)
Lack of sexual interest or desire	24 (32.5)	19 (35.18)	5 (25)
Takes too long to orgasm or climax	23 (31.1)	18 (33.33)	5 (25)
Less feeling or numbness in my genitals	21 (28.4)	16 (29.62)	5 (25)
Less intense or pleasurable orgasms or climaxes	18 (24.4)	12 (22.22)	6 (30)
Men reported difficulty in getting or keeping a satisfactory erection	14 (18.9)	NA	14 (70)
Women reported inadequate lubrication or wetness	13 (17.6)	13 (24)	NA
Secondary			
Bladder or urinary symptoms	20 (27)	16 (29.62)	4 (20)
Muscle tightness or spasms in arms, legs or body	15 (20.3)	11 (20.37)	4 (20)
Pain, burning or discomfort in body	10 (13.5)	8 (14.81)	2 (10)
Bowel symptoms	7 (9.5)	6 (11.11)	1 (5)
Tremors or shaking in hands or body	7 (9.5)	3 (5.55)	4 (20)
Tertiary			
Feeling less confident about my sexuality due to MS	22 (29.8)	14 (25.92)	8 (40)
Worries about sexually satisfying my partner	17 (23)	11 (20.37)	6 (30)
Feeling less masculine or feminine due to MS	16 (21.6)	13 (24.07)	3 (15)
Feeling their body is less attractive	15 (20.3)	12 (22.22)	3 (15)

Fear of being rejected sexually because of MS	14 (19)	10 (18.51)	4 (20)
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SD: sexual dysfunction, MSISQ: Multiple Sclerosis Intimacy and Sexuality Questionnaire, MS: multiple sclerosis, NA: not applicable
Figures represent numbers scoring highly likely and likely on the Likert scale

Table 2. Barriers perceived by MS patients, listed in order of prevalence

Barriers (Agree/ Strongly agree)	Total (N=74) N(%)	Female (N=54) N(%)	Male (N=20) N(%)
Other MS symptoms overshadow sexual problems	30 (40.5)	24 (44.44)	6 (30)
Presence of family or friends in the consultation room	28 (37.8)	19 (35.18)	9 (45)
The doctor/ nurse not asking about sexual problems	25 (33.8)	21 (38.88)	4 (20)
Sexual problems are low priority	24 (32.5)	20 (37.03)	4 (20)
Lack of time to discuss during the consultation	21 (28.4)	16 (29.62)	5 (25)
Feeling that it's pointless to ask because there's no treatment	20 (27.1)	17 (31.48)	3 (15)
Lack of rapport with the doctor/ nurse	18 (24.3)	15 (27.77)	3 (15)
Anxiety and discomfort about discussing sexual problems	17 (23)	13 (24.07)	4 (20)
Presence of other doctors/ nurses in the consultation room	17 (23)	13 (24.07)	4 (20)
Feeling shy or embarrassed about discussing sexual problems	17 (23)	14 (25.92)	3 (15)
Doctor /nurse being of the opposite gender	16 (21.6)	14 (25.92)	2 (10)
Own attitudes and beliefs towards sexual problems	13 (17.6)	10 (18.51)	3 (15)
Currently not being in a relationship	13 (17.6)	7 (12.96)	6 (30)
Concern that a discussion on sexual problems might reveal something embarrassing	11 (14.9)	8 (14.81)	3 (15)
Fear of appearing to be inappropriate	10 (13.6)	9 (16.66)	1 (5)
Fear of offending the doctor/nurse	10 (13.5)	9 (16.66)	1 (5)
Perceived age gap with the doctor/nurse	7 (9.5)	6 (11.11)	1 (5)
Discussion interferes with privacy	7 (9.5)	4 (7.4)	3 (15)
Perception that sexual dysfunction is not an MS-related problem	6 (8.1)	5 (9.25)	1 (5)
Language barriers	3 (4.1)	3 (5.55)	0 (0)
Religious or cultural factors	2 (2.7)	2 (3.7)	0 (0)

MS: multiple sclerosis

Table 3. Barriers perceived by HCPs, listed in order of prevalence

Barriers (Agree/ Strongly agree)	Total (N=98 (N)) N(%)	Female (90 female) N(%)	Male (8 male) N(%)
Presence of family or friends in the consultation room	34 (34.7)	30 (33.70)	4 (50)
Lack of knowledge in this field	30 (30.6)	28 (31.46)	2 (25)
Lack of time to discuss during the consultation	27 (27.6)	25 (28.08)	2 (25)
Perception that patient is not ready to discuss sexual problem	27 (27.6)	24 (26.96)	3 (37.5)
Concern that discussing sexual problems may increase patient's anxiety and discomfort	23 (23.4)	19 (21.34)	4 (50)
Other MS related symptoms overshadow sexual problems	22 (22.5)	19 (21.34)	3 (37.5)
Lack of rapport with the patient	20 (20.4)	18 (20.22)	2 (25)
Fear of offending the patient	20 (20.4)	18 (20.22)	2 (25)
Not adequately trained to discuss sexual problems	19 (19.4)	18 (20.22)	1 (12.5)
Fear of appearing to be inappropriate	17 (17.3)	14 (15.73)	3 (37.5)
Patient not asking about sexual problems	16 (16.4)	14 (15.73)	2 (25)
Elderly age of the patient	14 (14.3)	12 (13.48)	2 (25)
Presence of other doctors/nurses in the consultation room	11 (11.2)	9 (10.11)	2 (25)
I feel shy or embarrassed about discussing sexual problems	10 (10.2)	8 (8.98)	2 (25)
Patient being of the opposite gender	8 (8.2)	5 (5.61)	3 (37.5)
Language barriers	8 (8.2)	7 (7.86)	1 (12.5)
Own attitudes and beliefs towards sexual problems	7 (7.1)	7 (7.86)	0 (0)
Perceived age gap with the patient	5 (5.1)	3 (3.37)	2 (25)
Perception that discussing sexual problems is someone else's responsibility	4 (4.1)	4 (4.49)	0 (0)
Feeling that it's pointless to ask because there's no treatment	2 (2)	1 (1.12)	1 (12.5)
Religious or cultural factors	2 (2)	2 (2.24)	0 (0)
Perception that sexual dysfunction is not an MS-related problem	0	0 (0)	0 (0)

HCPs: Healthcare professionals

Table 4. Barriers faced by MS patients and HCPs with proposed solutions

Patients with MS				HCPs				p-value	Proposals to address barriers
Barriers (Agree/ Strongly agree)	Total (N=74) N(%)	Female (N=54 (73%)) N(%)	Male (N=20 (27%)) N(%)	Barriers (Agree/ Strongly agree)	Total (N=98 (N)) N(%)	Female (90 female (91.83 %) N(%)	Male (8 male (8.2%)) N(%)		
My other MS symptoms overshadow sexual problems	30 (40.5)	24 (44.44)	6 (30)	The patient's other MS related symptoms overshadow sexual problems	22 (22.5)	19 (21.34)	3 (37.5)	0.097	<input type="checkbox"/> Explaining the association between MS and SD and giving permission to patients to discuss SD during clinic visits
Presence of family or friends in the consultation room	28 (37.8)	19 (35.18)	9 (45)	Presence of family or friends in the consultation room	34 (34.7)	30 (33.70)	4 (50)	0.043	<input type="checkbox"/> Set aside a part of the consultation with the patient alone
The doctor/ nurse not asking about the problem	25 (33.8)	21 (38.88)	4 (20)	Patient does not ask about the problem	16 (16.4)	14 (15.73)	2 (25)	0.100	<input type="checkbox"/> Educating HCPs about giving permission to patients to discuss SD in the framework of the PLISSIT model <input type="checkbox"/> MS information leaflets encouraging patients to raise the topic of SD during clinic visits
Sexual problems are low in my priorities	24 (32.5)	20 (37.03)	4 (20)						<input type="checkbox"/> Explaining the association between MS and SD and giving permission to patients to discuss SD during clinic visits if relevant
Lack of time	21 (28.4)	16 (29.62)	5 (25)	Lack of time	27 (27.6)	25 (28.08)	2 (25)	0.266	<input type="checkbox"/> Use of symptom check-lists to identify priority areas for review during the clinic visit <input type="checkbox"/> Staggering the discussion over several consultations to allow for time to discuss this intimate topic <input type="checkbox"/> Joining up doctor-led and nurse-led clinics so that sufficient time is available

Feeling that it's pointless to ask because there's no treatment	20 (27.1)	17 (31.48)	3 (15)	No point in asking because there's no treatment	2 (2)	1 (1.12)	1 (12.5)	0.000	<input type="checkbox"/> Explaining the association between MS and SD and the different therapeutic strategies for managing sexual difficulties <input type="checkbox"/> MS information leaflets highlighting treatment options for managing SD
Lack of rapport with doctor/ nurse	18 (24.3)	15 (27.77)	3 (15)	Lack of rapport with the patient	20 (20.4)	18 (20.22)	2 (25)	0.408	<input type="checkbox"/> Training HCPs to communicate sensitive matters such as SD <input type="checkbox"/> Involve different HCPs such as clinical nurse specialists when discussing the topic of SD
My anxiety and discomfort about discussing sexual problems	17 (23)	13 (24.07)	4 (20)	I am concerned that a discussion on sexual problems may increase patient's anxiety and discomfort	23 (23.4)	19 (21.34)	4 (50)	0.060	<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> Training sessions and observerships on SD for HCPs <input type="checkbox"/> Involve different HCPs such as clinical nurse specialists when discussing the topic of SD
Presence of other doctors/ nurses in the consultation room	17 (23)	13 (24.07)	4 (20)	Presence of other doctors/nurses in the consultation room	11 (11.2)	9 (10.11)	2 (25)	0.552	<input type="checkbox"/> Set aside a part of the consultation with the patient alone

Feeling shy or embarrassed about talking to the doctor/nurse	17 (23)	14 (25.92)	3 (15)	I feel shy or embarrassed to ask	10 (10.2)	8 (8.98)	2 (25)	0.997	<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Giving permission to patients to discuss SD during clinic visits
The doctor/nurse is of the opposite gender	16 (21.6)	14 (25.92)	2 (10)	The patient is of the opposite gender	8 (8.2)	5 (5.61)	3 (37.5)	0.431	<input type="checkbox"/> When giving permission to patients to discuss SD during clinic visits to enquire about any concerns from the patient such as the gender of the HCP
My own attitudes and beliefs towards sexual problems	13 (17.6)	10 (18.51)	3 (15)	My own attitudes and beliefs about sexual problems	7 (7.1)	7 (7.86)	0 (0)	0.414	<input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> Training sessions and observerships on SD for HCPs
I am currently not in a relationship	13 (17.6)	7 (12.96)	6 (30)						<input type="checkbox"/> Explaining the association between MS and SD and giving permission to patients to discuss SD during clinic visits if relevant
A discussion on sexual problems might reveal something embarrassing like masturbation or buying Viagra	11 (14.9)	8 (14.81)	3 (15)						<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD
Fear of appearing to be inappropriate	10 (13.6)	9 (16.66)	1 (5)	Fear of appearing to be inappropriate	17 (17.3)	14 (15.73)	3 (37.5)	0.001	<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD

Fear of offending the doctor/nurse by asking	10 (13.5)	9 (16.66)	1 (5)	Fear of offending the patient	20 (20.4)	18 (20.22)	2 (25)	0.000	<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD
Age gap between the doctor/nurse and myself	7 (9.5)	6 (11.11)	1 (5)	Age gap between the patient and myself	5 (5.1)	3 (3.37)	2 (25)	0.000	<input type="checkbox"/> When giving permission to patients to discuss SD during clinic visits to enquire about any concerns from the patient such as the age gap with the HCP
A discussion on sexual problems interferes with my privacy	7 (9.5)	4 (7.4)	3 (15)						<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD
I do not see sexual dysfunction as being an MS-related problem	6 (8.1)	5 (9.25)	1 (5)	I do not see sexual dysfunction as being an MS-related problem	0	0 (0)	0 (0)	0.000	<input type="checkbox"/> Explaining the association between MS and SD and giving permission to patients to discuss SD during clinic visits
Language barriers	3 (4.1)	3 (5.55)	0 (0)	Language barriers	8 (8.2)	7 (7.86)	1 (12.5)	0.589	<input type="checkbox"/> When giving permission to patients to discuss SD during clinic visits to enquire about any concerns from the patient such as the language barrier with the HCP

Religious or cultural factors	2 (2.7)	2 (3.7)	0 (0)	My own religious or cultural factors	2 (2)	2 (2.24)	0 (0)	0.218	<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits <input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> When giving permission to patients to discuss SD during clinic visits to enquire about any concerns from the patient such as religion or culture
				I do not feel that the patient is ready to discuss the problem	27 (27.6)	24 (26.96)	3 (37.5)		<input type="checkbox"/> MS information leaflets for patients outlining the different sexual problems occurring in MS and encouraging patients to discuss during clinic visits
				I think this is not something I should address (it's someone else's job)	4 (4.1)	4 (4.49)	0 (0)		<input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD
				Lack of knowledge in this field	30 (30.6)	28 (31.46)	2 (25)		<input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> Training sessions and observerships on SD for HCPs
				I was not trained to discuss sexual problems	19 (19.4)	18 (20.22)	1 (12.5)		<input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> Training sessions and observerships on SD for HCPs
				Elderly age of the patient	14 (14.3)	12 (13.48)	2 (25)		<input type="checkbox"/> Training HCPs about communicating sensitive matters such as SD <input type="checkbox"/> Training sessions and observerships on SD for HCPs

MS : multiple sclerosis, HCPs: healthcare professionals, SD: sexual dysfunction, PLISSIT: permission, limited information, specific suggestions, intensive therapy