ORIGINAL ARTICLE

Sexuality and chronic pain in long-lived females: description of interferential factors*

Sexualidade e dor crônica em idosas longevas: descrição de fatores interferenciais

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DOI 10.5935/1806-0013.20150010

ABSTRACT

BACKGROUND AND OBJECTIVES: Approximately 60% of chronic pain individuals complain of sexual dysfunction, the prevalence of which varies from 20 to 88%. Among sexual complaints most reported by elderly females there are low interest, difficult vaginal lubrication and inability to reach orgasm. This study aimed at checking the prevalence of sexual dysfunction among long-lived females with chronic pain and at describing interfering factors.

METHODS:This was a descriptive, analytical and cross-sectional study with females above 80 years of age. Data were collected on demographics, comorbidities and use of drugs, in addition to chronic pain evaluation and measurement and identification of sexual dysfunctions by the Short Personal Experiences Questionnaire.

RESULTS: Participated in the study 32 elderly females, with mean age of 87 years, most of them widows, with less than 4 years of education, good self-reported health, without sexual partner and with primarily osteoarthritis-induced nociceptive pain.The prevalenceof sexual dysfunctionwasfoundtobe 78% ofelderlywithchronicpainwith a mean score of7. Major reason for sexual inactivity was lack of a partner. In approximately 28.1% it was observed that chronic pain would interfere with sexuality. It was also observed that no elderly female had been previously addressed as to their sexuality, although 68.8% have stated that would have liked to be addressed.

CONCLUSION:Chronic pain was considered a factor interfering with sexual practices of studied long-lived females, suggesting that this symptom may impair sexuality during aging.

Keywords:Chronic pain, Geriatrics, Health of the elderly, Physiological sexual dysfunction, Sexuality.

RESUMO

JUSTIFICATIVA E OBJETIVOS: Cerca de 60% dos indivíduos com dor crônica queixam-se de disfunção sexual, cuja prevalência varia de 20 a 88%. Entre as queixas sexuais mais relatadas entre as idosas estão o baixo interesse, a dificuldade de lubrificação vaginal e a incapacidade de alcançar o orgasmo. O objetivo deste estudo foi apurar a prevalência de disfunção sexual entre as idosas longevas com dor crônica, e descrever os fatores de interferência.

MÉTODOS: Foi realizado um estudo descritivo e analítico de corte-transversal, com indivíduos acima de 80 anos, do gênero feminino. Foram coletados dados sócio-demográficos, de comorbidades e uso de fármacos, além da avaliação e mensuraçãoda dor crônica e apuraçãodas disfunções sexuais através do *Short PersonalExperiencesQuestionnaire*.

RESULTADOS: Participaram do estudo 32 idosas com média de idade de 87 anos, a maioria viúva, com menos de 4 anos de escolaridade, boa saúde autorreferida, sem parceiro sexual, e com dor crônica prevalentemente nociceptiva por osteoartrite. A prevalência de disfunção sexual encontrada foi de 78% das idosas com dor crônica, com pontuação média de 7. A principal causa da inatividade sexual foi a ausência de um parceiro. Em cerca de 28,1% observou-se que a dor crônica interferia na sexualidade. Tambémse observou que nenhuma idosa fora abordada anteriormente quanto a sua sexualidade, apesar de 68,8% delas terem afirmado que gostariam de já ter sido abordadas.

CONCLUSÃO: A dor crônica foi considerada um fator que interferia na prática sexual das idosas longevas estudadas, sugerindo que esse quadro possa comprometer a sexualidade no envelhecimento.

Descritores: Disfunção sexual fisiológica, Dor crônica, Geriatria, Saúde do idoso, Sexualidade.

INTRODUCTION

Life expectation is increasing worldwide and with it, the prevalence of chronic problems is also increasing among aging individuals, such as chronic pain presentations[1].

Approximately 60% of individuals with chronic pain complain of sexual dysfunction[1]. Among major complaints, there are: position during sexual intercourse, lack of libido, fear

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Submitted in October 08, 2014.
Accepted for publication in February 19, 2015.
Conflict of interests: none – Sponsoring sources: none.

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of pain exacerbation, depression, relationship problems and confidences. Typical intercourse positions may compress or hyper-stretch a painful point, worsening pain intensity and making sex a pain triggering factor[2].

Other chronic pain consequences, such as depression, anxiety, social isolation, sleep disorders, moving and walking difficulties and self-evaluation impairment also affect general patients' health and sexual wellbeing[3]. Drugs used to control pain are also related to decreased libido and inability to reach orgasm[4]. Opioid analgesics and selective serotonin reuptake inhibitors antidepressants are commonly associated to decreased libido[5]. Previous surgical or radiotherapeutic procedures may also trigger pain processes during sexual intercourse[6].

Sexual health is a key-element for general health and quality of life (QL)[7]. Being sexually active may provide physical benefits, such as cardiovascular health[8], improved physical exercise, decreased pain sensitivity, and psychological benefits, such as decreased depression, general wellbeing and QL improvement[9] and increased longevity[10]. One third of Americans between 75 and 85 years of age report being sexually active and that physical health is more soundly related to sexual activity than age itself[11]. In addition to chronic pain, other medical and psychological causes, changes in body image, decreased sensitivity, lack of partner and religious and cultural habits may decrease sexual activity of the elderly[11]. Advanced age and poor health are negatively associated to the inability of being sexually active[12].

Sexual dysfunction is common among elderly females, with prevalence varying from 20 to 88%[13,14]. This could also significantly affect self-esteem and QL[15,16]. Most important complaint related to such dysfunction is low sexual interest, difficult vaginal lubrication and inability to reach orgasm[11]. Discomfort during sexual intercourse is a common menopausal problem. Anxiety may induce dyspareunia due to decreased blood flow to the vagina. Decreased vaginal lubrication may cause more tissue irritation and friability, and may result in pain or abdominal discomfort[5].

Notwithstanding the relative frequency of sexual dysfunctions, few males and females report such complaints to health professionals[17]. Just approximately 30% of physicians regularly ask about sexual activity of their patients, especially male patients. Major barrier reported by 53% of physicians is the fact of considering the subject embarrassing or fear of offending patients, in addition to lack of time during consultations and especially lack of academic qualification to treat sexual problems. The market of drugs and devices to treat sexual dysfunction is increasing and this, in part, increases the demand for health services access. The subject sexuality is virtually inexistent in elderly basic attention[18].

So, since determinants of sexual problems among elderly females are multifactorial, studying their multiple factors would have scientific merit and could help the orientations given by medical attention to elderly females.

This study aimed at identifying the prevalence of sexual dysfunction among long-lived females with chronic pain and at describing factors interfering with that dysfunction, supposing that negative society attitudes about aging and sexuality, especially among long-lived females, would represent a major challenge.

METHODS

Observational, descriptive and cross-sectional study carried out as from the "Long-Lived Project" of the Discipline of Geriatric and Gerontology (DIGG), Federal University of São Paulo (UNIFESP). This is an observational longitudinal study in the city of São Paulo, started in 2011, with community long-lived people, with 80 or more years of age, of both genders, without cognitive impairment, able to walk without the help of third parties and with no diagnosis of potentially severe or fatal disease. Elderly with limiting sensory deficits, cognitive deficit or debilitating clinical diseases were excluded.

Inclusion criteria were long-lived people with chronic pain lasting for 6 months or more, and intensity equal to or above 3 by the numerical scale. Evaluation period was from February 2010 to December 2012. All patients included in the study have signed the Free and Informed Consent Term (FICT).

Interviews were carried out with questions regarding sociodemographic data (age, marital status, religion and education level), functionality profile for daily life activities[19,20], and use of drugs to treat chronic pain that interfere with sexual function, such as serotonin reuptake inhibitor antidepressants, opioids and anticonvulsants. We have also evaluated pain as to location, frequency, character, triggering and attenuating factors, nature according to physiopathogenesis (nociceptive, neuropathic, mixed or psychogenic). To measure pain intensity pain verbal description scale (VS) (mild, moderate and severe) and pain verbal numerical scale (VNS) (0-10) were used.

Questions regarding elderly general health self-perception and regarding pain interference with their sexual practice were asked, in addition to questions about reason for sexual decrease or inactivity. The Short Personal Experiences Questionnaire (SPEQ) was applied. This is a tool validated for the Portuguese language[21] and made up of nine questions addressing libido (one question), sexual responsiveness (three questions), sexual activities frequency (one question), feelings regarding partner (two questions), partner sexual difficulty (one question) and pain during penetration (one question), making up a structured and concise questionnaire. This questionnaire has been especially used in studies with menopausal females, allowing the evaluation of the presence of sexual dysfunctions and associated factors, but it is also used for individuals of different ages and menopausal states, regardless of the presence or not of sexual partner and regardless of the type of relation, whether heterosexual or homosexual[22,23].

Statistical analysis

Statistical program R, version 2.15.2 was used for statistical analysis. For quantitative variables (numerical) some summary-measures were calculated, such as mean, median, minimum and maximum values and standard deviation. Quali-

tative variables (categorized) were analyzed by absolute and relative frequencies calculation.

This study was approved by the Research Ethics Committee, UNIFESP/EPM - CEP 443.760.

RESULTS

We have observed mean age of 87 years (standard deviation of 4.6 years), varying from 80 to 100 years, being most widows (59.4%), (21.9% single, 15.6% married and 3.1% separated), and with mean education level of 3.1 years. Only 18 elderly females have reported their religion, being 66.7% catholic, 22.2% evangelists, 5.6% spiritualists and 5.6% Mormons (Table 1).

Table 1. Sample characterization

Age (years)	n	32	
	Mean	87.0	
	Median	86.0	
	Minimum-maximum	80.0-96.0	
	Standard deviation	4.6	
Education (years)	n	32	
	Mean	3.1	
	Median	3.5	
	Minimum-maximum	0.0-10.0	
	Standard deviation	2.0	
Marital status	Single	7	21.9%
	Married	5	15.6%
	Separated	1	3.1%
	Widow	19	59.4%
	Total	32	100.0%
Religion	Catholic	12	66.7%
	Evangelist	4	22.2%
	Spiritualist	1	5.6%
	Mórmon	1	5.6%
	Total	18	100.0%

With regard to chronic pain, 87.5% had nociceptive pain, 3.1% neuropathic pain and 9.4% mixed pain and, according to its intensity a median of 8.0 was obtained with VNS. Considering pain etiology, 71.9% had osteoarthritis-related pain, 6.3% had myofascial syndrome and 21.9% other types of pain, such as headache, radiculopathy, fibromyalgia, bone fracture sequelae, post-herpetic neuralgia, post-trauma muscle injury sequelae and rotating cuff injury.

As to drugs interfering with sexual function, it was observed that 12.5% used opioid analgesics, 37.5% some type of antidepressant (duloxetine used by 6.3% of the elderly, serotonin reuptake inhibitor by 18.8% and tricyclic by 12.5%), 6.3% some anticonvulsant and 62.5% would use no such drugs. Approximately 28.1% of the elderly have reported that chronic pain interfered with sexual activity, and no elderly female in the sample referred having been asked before about sexuality, although 68.8% would have liked to be approached at some moment of their lives about sexuality. As to general health self-perception, 3.1% of the elderly have evaluated their health as excellent, 50.0% as good, 37.5% as regular and 9.4% as poor (Table 2).

Table 2. Distribution of functionality, health self-evaluation and use of analgesic drugs, adjuvants or not

Basic daily life activities			
	Mean score	5.4	
	Median	5.0	
	Minimum-maximum	5.0-6.0	
	Standard deviation	0.5	
Instrumental daily life activities			
	Mean score	24.1	
	Median	25.0	
	Minimum-maximum	17.0-27.0	
	Standard deviation	2.8	
Health self-evaluation	Excellent	1	3.1%
	Good	16	50.0%
	Regular	12	37.5%
	Poor	3	9.4%
	Total	32	100.0%
Opioid analgesic	No	28	87.5%
	Yes	4	12.5%
	Total	32	100.0%
Antidepressant	Duloxetine	2	6.3%
	Serotonin reuptake inhibitor	6	18.8%
	Tricyclic	4	12.5%
	No antidepressants	20	62.5%
	Total	32	100.0%
Anticonvulsant	No	30	93.8%
	Yes	2	6.3%
	Total	32	100.0%
Pain interference with sexual activity	No	23	71.9%
	Yes	9	28.1%
	Total	32	100.0%

SPEQ questionnaire was applied to the whole sample. It was observed that in the last month, the vast majority of elderly females (81.3%) had no sexual activity whatsoever (masturbation, excitation and/or penetration) (Table 3), 9.4% had sexual activity less than once a week and 9.4% had twice or more a week. About the frequency of sexual fantasies and thoughts and/or sexual desire in the last month, 46.9% have never had them, 43.8% had them less than once a week, 3.1% once to twice a week, and 6.3% had them several times a week.

Table 3. Sexual dysfunctions according to Short Personal Experiences Questionnaire

Sexual activity frequency (a)	Never	n 26	% 81.3
	Less than once a week	3	9.4
	Once to twice a week	1	3.1
	Several times a week	2	6.3
Frequency of fantasies (b)	Never	15	46.9
	Less than once a week	14	43.8
	Once to twice a week	1	3.1
	Several times a week	2	6.3
Stimulation score (c)		Score	
	Mean	2.3	
	Median	2.0	
	Minimum-maximum	1-4	
	Standard deviation	1.1	
Satisfaction score (d)		Score	
	Mean	2.7	
	Median	2.0	
	Minimum-maximum	1-6	
	Standard deviation	2.0	
Orgasm score (e)		Score	
	Mean	2.6	
	Median	2.0	
	Minimum-maximum	1-6	
	Standard deviation	1.7	
Sexual partner in the last month	No	N 29	% 90.6
	Yes	3	9.4
Partner score	2	1	33.3
	6	2	66.7
In love score	3	1	33.3
	6	2	66.7
Score according to sexual partner problem	1	1	33.3
	2	1	33.3
	6	1	33.3
Penetration	No	30	93.8
	Yes	2	6.3
	Total	32	100.0
Score of pain during penetration	1	1	50.0
	3	1	50.0
	Total	2	100.0

(a) frequency the elderly had any sexual activity (masturbation, excitation and/or penetration), in the last month, (b) frequency the elderly had sexual fantasies and thoughts and/or sexual desire in the last month, (c) score given to the frequency she felt stimulated or excited (with lubricated/moist vagina), (d) score given to sexual activity satisfaction, (e) score given to orgasm intensity during sexual activity.

Among those practicing some type of sexual activity (Table 2), we have asked the frequency of being stimulated or excited and 12 elderly gave scores varying from1 to 4 (mean 2.3). Sexual activity satisfaction score has varied from 1 to 6 (mean 2.7), and that attributed to orgasm frequency has varied from 1 to 6 (mean 2.6). Only 9.4% have reported having partner in the last month. All elderly females have reported heterosexual preference and 6.3% have reported sexual activity with penetration. According to SPEQ, 78% of elderly females had sexual dysfunction (mean score of 7).

DISCUSSION

There are few studies on elderly sexuality, especially those long-lived, with more than 80 years of age.

Our study, with participation of very old females (mean of 87 years), has observed that more than 70% were widows, single or separated, and had no sexual partner, so this could have been the major reason of observed sexual inactivity. Some authors have already observed that widowhood was the primary cause of sexual inactivity among elderly females[24]. Goh et al.[25] in a study with elderly people in Singapore have found significant sexual activity decrease with age.

With increased age, the presence of sexual partner may be a protecting factor against sexual inactivity[26,27]. In a study with elderly females up to 79 years of age, it was observed that those sexually happier were those with sexual partner[16].

In our sample, with regard to general health self-perception by chronic pain elderly females, 50% have considered their health as good, in spite of mean chronic pain intensity being severe (NS=7.8) and of infrequent sexual practice. Lindau and Gavrilova[7], analyzing two large population studies, have stated that among long-lived people there is a positive correlation among health, presence of partner and sexual activity. Other studies have shown the relationship between being sexually active and general health status[11,12,26].

With regard to chronic pain, 28% of the elderly have stated that the symptom could impair sexual life and such percentage is considered significant. Some studies have shown the negative effect of pain on sexual function. A study involving young females with ankylosing spondylitis has observed high prevalence of sexual dysfunction, possibly due to high depression levels, decreased functionality, poor pain control and worsened QL[28]. A different study has shown that better sexual function could improve pain control[29].

As to drugs potentially interfering with sexual function, it was observed that elderly females part of this study used them frequently (12.5% used opioid analgesics, 37.5% antidepressants and 6.3% anticonvulsants), and sexual dysfunction may be considered a common antidepressant adverse effect[30]. McCall-Hosenfeld et al.[16] have observed that sexually happier elderly females were those older, married and with partner, and also those emotionally healthy not under selective serotonin reuptake antidepressants.

We have also observed that most females had no sexual activity whatsoever (masturbation, excitation and/or penetration) in

the last month. With regard to sexual responsiveness, most have given low scores for stimulation/excitation, sexual satisfaction and orgasm frequency. Lindau et al.[11] have observed that major sexual dysfunction among the elderly were inability to reach orgasm, in addition to low sexual desire and difficult lubrication. Masturbation prevalence decreases with age, but according to some authors[11], sexuality is not dramatically decreased with age. From total sample, only 6.3% had sexual activity with penetration and it has already been observed that vaginal penetration importance increases with aging[31].

It has been observed that sexual dysfunction rate among the elderly varies from 42 to 88%[13]. And partner availability is important factor for sexual function, especially for the elderly[32]. SPEQ questionnaire about sexuality has a score with cutoff point equal to or below 7 to consider the presence of sexual dysfunction and here, using this tool, we had mean of 7 points, being that 78% of the sample were considered with sexual dysfunction. In the transition from early to late menopause, the percentage of females with SPEQ with low sexual function increases a lot, varying from 42 to 88%[33]. According to international literature, sexual dysfunction prevalence is high with aging, and in spite of this, sexual abstinence is not an unavoidable consequence of time, and a high proportion of males and females remains sexually active until the end of their lives[34]. Decreased sexual function in the elderly seems to be more a response to several stressors in other factors, which go from physical health to intimate relationship[35].

It is interesting in our study that no elderly female had been already asked about sexuality, and we have also observed that most (68.8%) would have liked to be previously asked. This might have occurred because most physicians consider sexual dysfunction "natural" to aging itself and not as a possibly changeable medical condition[33].

Life expectation is increasing, especially in Brazil, so it would be necessary to maintain elderly people functional and happy until the end of their lives, in all functions, including sexuality, which may be considered an important QL aspect, thus it cannot be overlooked.

Major limitations of this study were small sample size and the performance of just descriptive analyses of long-lived females of the community. However, our study may contribute with novel scientific data in Brazil. Our data reinforce the issue that physicians should address sexuality during consultations, even with very old people, valuing chronic pain as interfering with individual's sexual activity.

CONCLUSION

In our sample, most long-lived females with chronic pain presented with sexual dysfunction, according to SPEQ tool, and major cause of reported sexual inactivity was the lack of a partner. Chronic pain was described and a factor interfering with sexual practice of studied elderly females, fact which ends up further impairing sexuality during aging.

In light of such findings, it is suggested that health professionals address sexuality during medical consultations involving elderly females, not forgetting to include in such approaches also long-lived females.

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