Libido and orgasm in middle-aged woman☆

Marcela González[a,*], Gloria Viáfara[a], Fresia Caba[b], Temistocles Molina[b], Carlos Ortiz[b]

[a] *Center for Women's health, PROFAMILIA, Menopause Service, Cali. Colombia, South America*
[b] *Department of Public Health and Epidemiology Unit, CEMERA, The University of Chile., Santiago de Chile, Chile*

Abstract

Objectives: Determine which social, demographic and sexual function variables that most influence libido or desire and orgasm domains in the premenopausal and postmenopausal women.

Methods: A cross-sectional analysis of 231 Colombian-born women, aged 40–62 years. The sexual function was measured by self-questionnaire. The analysis was performed by using the χ^2-test and multivariate regression analysis. The sexual function was divided in five domains: desire, arousal, lubrication, orgasm, pain; additionally satisfaction was included.

Results: The women with a higher level of education and with a good perception of their satisfaction with their partners, reported better performance in the desire. Age and the non existence of sexual partner influenced in a negative way on the desire. In sexual active women the orgasm was negatively influenced by low satisfaction scores, lack of emotional closeness with their partners and low educational level. High scores in lubrication and desire were associated with a good performance in the orgasm. The hormone therapy (HT) was associated with better scores in orgasm.

Conclusions: Age, level of education, the presence or lack of sexual partner, degree of satisfaction with emotional closeness with the partner and adequate lubrication, influence the desire and orgasm domains in a significant way. By identifying these associations we can then perform some inexpensive interventions. Improving lubrication for menopausal women. Including men in educational activities to sensitize them toward women's feelings. Organizing educational campaigns for middle-aged women to demystify that sexuality is only for young people.

Keywords: Libido; Orgasm; Middle-aged; Sexual function; Sexual desire

1. Introduction

Sexual function is an important aspect of well-being and quality of life for human beings. It results from the interaction of biological, psychological, physiological, cultural and social aspects. Moreover, middle-aged women are additionally influenced by the hormonal changes surrounding menopause which affects libido and orgasm. [1]

The available literature on about menopause on female sexual function report contradictory results. Some studies have found that Menopause affects almost all the domains of sexual function [2–7].

☆ This work has not been financed by any pharmaceutical company, or private or government institution.

* Corresponding author. Tel.: + 57 2 6618032; fax: +57 2 6678320.
E-mail address: magonzz40@hotmail.com (M. González).

Prospective and longitudinal studies measuring hormonal levels of estradiol (E2), FSH, Inhibin and testosterone report a negative impact only in lubrication and pain areas [8–10]; or a significantly lower level of desire perceived by patient and not related with estrogens level [10]. We in our research on sexual function, menopause and hormone therapy (HT) (in press) found that menopause significantly affects only lubrication and pain during and after sexual intercourse. Female sexual dysfunction, as classified by the Diagnostic and Statistical Manual, fourth ed. (DSM-IV-1994) [11], has been divided into four areas: desire, arousal, orgasm and pain. However most studies predating 1994 did not use this classification, but still they reported that desire (libido), and pain; including lubrication were the aspects most affected by menopause stage [2–10]. Furthermore the age, mental and physical stage of health, marital status, and feelings toward the sexual partner influence the sexual function in a greater degree than menopause [3,8,9,19].

Few research studies have addressed sexual function in middle-aged women and even fewer studies have attempted to evaluate the social and demographic aspects that influence in the sexual desire and orgasm in this period of life.

In a multicentric study with 627 pre and postmenopausal Bulgarian women, with and without HT Borissova et al. [6], found the following associations between psychological states and sexual response: depression was associated to sexual aversion, self-esteem to sexual desire and pain during intercourse, and depression to frequency of masturbation.

Few studies have sought the prevalence of alterations in the desire (libido) in middle-aged women. Hallstrom et al. [3] reported a prevalence of 27%; in our research (in press) we found 38.1%; the Women's Health Across the Nation (SWAN) study that included 14.620 women with natural menopause reported a 40% prevalence, based on information obtained by telephone interviews [12,13].

Blümel et al. [7] reported a prevalence of alterations in the desire of 13.3% in women 40–44-years-old, but 46.7% in the women 50–54-years-old.

The prevalence of alterations in the orgasm reported by Laumann et al. [14] in a sample of 1749 women aged 18–59-years-old, was 22% in the sub-group 40–49-years-old; and 23% in the sub-group of women 50–59-years-old; Rosen et al. [15] in a sample of 329 healthy women between 18 and 73-years-old, reported that 20% of the menopausal women had difficulty in achieving orgasm. In a study specifically addressing to menopausal women Blümel et al. [7] reported 6.7% of alterations in orgasm in women 40–44-years-old and 31% in women 50–54-years-old. In our study, using a sample of 234 middle-aged, Colombian women, we found a14% prevalence of alterations in the orgasm area in the premenopausal women and 22% in postmenopausal women.

Disturbances of the sexual function are closely related to several emotional aspects of the couple. Some studies have found that marital satisfaction is associated with frequency of sexual activity, (not necessarily intercourse), and the perception of spouses sexual satisfaction [16,17]. However these studies have not been made specifically with middle-aged women.

In a study with 677 urban middle-aged women, Hallstrom et al. [3] reported that age, psychosocial factors associated with quality of marital relationship, insufficient spousal support, spousal alcoholism and mental health were the major contributors towards change in desire.

In a research carried out with 6.029 married couples, Donnelly evaluated 19 independent variables. She found an association between sexual inactivity and older age, the presence of small children, poor state of health; and, specifically in males, with duration of marriage [16]. Additionally, she found that marital satisfaction was related to frequency of sexual activity but not with frequency of intercourse. Therefore, the couples can be sexually active without having sexual intercourse. In a longitudinal study of 201 mid-aged premenopausal and postmenopausal Australian women, with a 4-year follow-up, Dennerstein et al. [9,19] assessed several factors that influence with sexuality, including feelings toward the sexual partner. These variables included passion, resentment toward the partner, hostility toward the partner, satisfaction with partner as friend and lover. They found that the feelings for their partner and their partner's problems determine sexual functioning, rather than be measure of sexual functioning per se. Other social variables such as paid work, daily hassles, educational level and interpersonal stress affect sexual functioning.

In a study with 200 pre and postmenopausal women with intact uterus and without hormone therapy, Avis et al. [10] assessed several socio-demographics variables

associated with the sexual function. They found that physical and mental health, marital status, smoking; had a greater impact on women's sexual function than menopause status. They reported a lower sexual desire related to menopause status, however the estradiol (E2) levels were only related to pain. In a psycho physiological study in postmenopausal women, Laan and Van Lunsen [18], found a significant negative association between high levels of prolactin and alteration of desire but not with E2 levels.

Arousal disorders, dyspareunia, orgasmic difficulties, dissatisfaction both physical and emotional, may contribute to a secondary loss of libido. Chronic stress, anxiety, depression may interfere with central and peripheral pathways contributing to the fading of the libido [1].

In our culture, a developing country, it is not common to give adequate attention to the different aspects of female sexual function, even less to middle-aged women. For this reason, currently there, are no studies addressing this issue in this specific age group.

The purpose of this study is to determine which sociodemographic, and sexual function factors influence the libido and the orgasm in middle-aged women with and without hormone therapy.

2. Subjects and methods

2.1. Methods

This is a sub-study of a research project on sexual function, menopause and hormonal Therapy. It is a cross-sectional, descriptive analysis of a sample of 231 women, performed between January and June 2002. The participants were 40–62-years-old, and were involved in educational and preventive activities addressed to the female population by PROFAMILIA Menopausal Clinic in Cali, Colombia. The sample was constituted by 70 (30%) premenopausal women with regular menstrual cycles; 77 (33%) postmenopausal women without HT; and 84 (36.3%) postmenopausal women with HT. All subjects met the requirements of inclusion criteria. The proposed study was reviewed and approved by our Institutional Review Board.

The instrument used for data collection was The Female Sexual Function Index (FSFI) [20]. This is an anonymous questionnaire developed by Rosen et al. [21] who demonstrated its reliability and validity. This new self-report instrument was previously tested by us on a similar population as the one currently studied. The questionnaire was handed out to each participant, including clear definitions of terms and instructions for easy understanding. Additionally, all participants could direct questions to a fieldworker regarding any doubts about the questionnaire.

The questionnaire consisted of two parts: the first containing questions on social and demographic characteristics, and the second, 19 questions on sexual function in the last 4 weeks. [20] These questions were clustered in five domains: desire, subjective arousal, lubrication, pain, and orgasm. Questions on satisfaction were included as well. Clustering by domains allowed us to assess sexual function according to the DSM-IV classification from 1994 [11].

All questions were given a scoring system ranging from 0 to 5, and each domain was assigned a minimum and maximum score (0–6), and the total score for sexual function was determined using the method described for the FSFI questionnaire (Table 1).

The data obtained was codified and analyzed on the Stata 7.0 software. An exploratory analysis was performed to ensure the reliability of the data. An univariate analysis was done to describe the population in question in regards of central tendency measures, dispersion and amplitude. Afterwards, a bi-variate dispersion analysis was done to evaluate the three different groups in the study with each demographic and sexual function variable. The Chi-square test was used for this purpose. Following this, a multivariate regression analysis was applied.

2.2. Sample

The subjects of this study were Colombian women, ages 40–62-years-old. The sample was clustered in 70 (30%) premenopausal women, 77 (33.3%) postmenopausal women without HT and 84 (36.3%) postmenopausal women with HT. The groups were similar in ethnicity, education and marital status; there was an age difference between premenopausal and postmenopausal group, which was expected.

2.3. Inclusion criteria

Premenopausal women aged 40–52 years with regular menstrual cycles lasting 23–33 days; women with

Table 1
Scale for evaluation of domain scores and sexual function total score (FSFI)

Domain	Questions	Score range	Score	Factor	Minimum score	Maximum score
Desire	1–2	1–5	2–10	0.6	1.2	6.0
Excitation	3–6	0–5	0–20	0.3	0	6.0
Lubrication	7–10	0–5	0–20	0.3	0	6.0
Orgasm	11–13	0–5	0–15	0.4	0	6.0
Satisfaction	14–16	0–5	0–15	0.4	0.8	6.0
Pain	17–19	0–5	0–5	0.4	0	6.0
Total score					2.0	36

The individual domain scores and full scale score the FSFI can be derived from the computational formula outlined in the table. For individual domain scores add the scores of the individual items that comprise the domain and multiply the sum by the domain factor. Add the six domain scores to obtain the full scale score. A domain score of zero indicates that the subject reported had no sexual activity during the past month. (It was taken of Female Sexual F. Index Questionnaire) [20].

Table 2
Baseline characteristics

	Premenopausal (N = 70)	Postmenopausal without TRH (N = 77)	Postmenopausal with TRH (N = 84)	Total (N = 231)
Age *n*(%)				
Average 49.61 years				
Minimum 40 years				
Maximum 62 years				
40–45	25(35.8)	15(19.5)	19(22.6)	59(25.5)
46–50	33(47.1)	26(33.7)	21(25.0)	80(34.6)
51–55	12(17.1)	21(27.3)	25(29.8)	58(25.1)
56–60	0	12(15.5)	12(14.3)	24(10.3)
61–65	0	3(4.0)	7(8.3)	10(4.3)
Race				
Mestizo	54(80.6)	58(81.7)	40(57.1)	152(73)
White	8(11.9)	8(11.3)	23(32.9)	39(18.7)
Black	5(7.5)	5(7.0)	7(10.0)	17(8)
Education				
Primary	23(32.9)	31(44.9)	27(34.6)	81(37.3)
High school	38(54.3)	31(44.9)	43(55.1)	112(51.6)
College/university	9(12.8)	7(10.2)	8(10.3)	24(11.1)
Civil status				
Single	1(1.4)	3(4.4)	2(2.7)	6(2.8)
Married	26(37.1)	37(53.6)	40(53.3)	103(48.1)
Widow	9(12.9)	2(2.9)	3(4.0)	14(6.5)
Cohabiting	23(32.9)	13(18.8)	17(22.7)	53(24.7)
Separated	11(15.7)	14(20.3)	13(17.3)	38(17.7)
Sexual activity				
With	50(71.4)	50(64.9)	60(71.4)	160(70)
Without	20(28.6)	27(35.1)	24(28.6)	71(30)
Sexual partner				
With sexual partner	52(74.2)	58(75.3)	64(76.1)	174(75.4)
Without sexual partner	18(25.8)	19(24.7)	20(23.9)	57(24.6)

Table 3
Significant variables, with more Influence on the libido on women with and without sexual partner, in a multivariate regression analysis

Desire	Coefficient	$P > (t)$	Confidence interval (95%)	
Sexual/partner	−0.8224602	0.000	−1.154195	−0.490725
Age	−0.0550167	0.000	−0.0821369	0.0278964
Satisfaction[a]	0.3105796	0.000	0.2104368	0.4107224
Education	0.2860352	0.010	0.068241	0.5038294

Number of observations: 225, $R^2 = 0.3616$.
[a] Satisfaction with overall sexual life.

natural menopause with ≥12 months since last menstrual period and ≥40-years-old; women with continuous HT for ≥3 months, women with o without a sexual partner. Additionally, women should have no difficulty to reading and understanding the questionnaire; should have an intact uterus and both ovaries and should not be undergoing psychiatric treatment or taking antidepressant or sedative medications.

3. Results

The mean age was 49.6 years (range, 40–62 years). Ethnic distribution was as follows: 73% mestizo; 18.7% white and 8% black (Table 2).

In the sample, 37.3% had completed or started primary school, 51.6% had completed or started high school and 11.1% had university/college education (Table 2).

Table 4
Significant variables with major associations with orgasm in a multivariate regression analysis on sexual active women

Orgasm	Coefficient	$P > (t)$	Confidence interval (95%)	
Satisfaction with sexual life	−0.5367293	0.010	−0.9453926	−0.1286066
Satisfaction with amount emotional closeness with partner	−1.023989	0.000	−1.440777	−0.6072009
Desire	0.1977705	0.008	0.0522842	0.3432567
Lubrication	0.3224412	0.000	0.1831854	0.461697
Education	−0.3303891	0.014	−0.5936367	−0.0671415
Hormone therapy	0.7281379	0.005	0.220078	1.236198

Number of observations: 156, $R^2 = 0.6799$.

Table 5
Frequency of scores of the variables of sexual function in women without sexual activity

Item for domain	Women without sexual activity ($N = 71$)														
	Premenopausal ($n = 20$)					Postmenopausal without HRT ($n = 27$)					Postmenopausal with HRT ($n = 24$)				
	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]
Desire															
Frequency	1(5)	11(55)	2(10)	2(10)	4(20)	14(52)	6(22)	6(22)	0	1(4)	8(33)	6(25)	4(17)	5(21)	1(3)
Level (degree)	3(15)	8(40)	7(35)	2(10)	0	16(59)	3(11)	8(30)	0	0	10(42)	2(8)	8(33)	4(17)	0
Satisfaction															
Sexual life[b]	2(11)	5(28)	2(11)	6(33)	3(17)	10(37)	11(40)	1(4)	4(15)	1(4)	7(29)	8(33)	0	6(25)	3(12)

[a] Scores.
[b] Satisfaction with overall sexual life.

Out of the 231 women, 57 (24.6%) had not sexual partner and 100% of them had no sexual activity in the prior four weeks; they denied masturbation and self-eroticism. Out of the 174 women (75.4%) who reported to have a sexual partner, 8% of them denied sexual activity, unfortunately, we did not study the reasons associated with this situation. Sexual activity in the last four weeks was reported by 160 (70%) of women. In a previous study of this same sample, we have found that desire and arousal were the domains of sexual function most affected, in 38.1% and 25%, respectively.

Multiple regression analysis of the data collected for woman with and without sexual activity, with and without sexual partner showed that the socio-demographic and sexual function variables most related to better performance in the area of desire (Libido) were higher level of education ($P < 0.01$) and good perception of their satisfaction ($P < 0.001$). The age and the non existence of sexual partner influenced in a negative way the desire domain. ($P < 0.001$and $P < 0.001$, respectively). There was not influence of the hormone therapy in the desire domain ($P = 0.165$) Tables 3–7.

In the group of sexually active women, the orgasm was negatively influenced by low scores in the areas of overall satisfaction with their partners ($P = 0.01$); satisfaction with emotional closeness with their partners ($P < 0.001$) and by lower educational level ($P = 0.014$). On the contrary, high scores in lubrication indices and in the desire domain were associated with a good performance in the orgasm domain. ($P < 0.001$ and $P = 0.008$). The hormone replacement therapy influenced significantly in positive way in the orgasm domain ($P = 0.005$). Tables 4, 6 and 7.

Table 6
Frequency of the scores for each variable of the sexual function

Domain	Premenopausal ($n = 50$)					
	Fr(%), 0[a]	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]
Desire						
Frequency		1(2)	15(30)	19(38)	4(8)	11(22)
Level		4(8)	7(14)	34(68)	3(6)	2(4)
Arousal						
Frequency		4(8)	12(24)	14(28)	9(18)	11(22)
Level		3(6)	11(22)	28(56)	7(14)	1(2)
Security		1(2)	11(22)	15(30)	14(28)	9(18)
Satisfaction		1(2)	8(16)	10(20)	12(24)	19(38)
Lubrication						
Frequency		2(4)	12(24)	7(14)	1(2)	28(36)
Difficulty		2(4.08)	4(8.16)	4(8.16)	14(28.6)	25(50)
Frequency to maintain		1(2)	15(30)	3(6)	6(12)	25(50)
Difficult to maintain		1(2)	4(8)	5(10)	13(26)	27(54)
Orgasm						
Frequency		3(6)	14(28)	9(18)	3(6)	21(42)
Difficulty		2(4)	3(6)	8(16)	13(26)	24(48)
Ability to reach		5(10)	4(8)	5(10)	19(38)	17(34)
Satisfaction						
Amount of emotional closeness with partner		4(8.2)	7(14.3)	2(4)	17(34.7)	19(38.8)
Sexual relationship with partner		8(16)	6(12)	2(4)	20(40)	14(28)
With overall sexual life		6(12)	7(14)	1(2)	20(40)	16(32)
Pain						
Frequency of pain during vaginal penetration	2(4)	7(14)	3(6)	11(22)	6(12)	21(42)
Frequency of pain after vaginal penetration	2(4)	5(10)	2(4)	0	14(28)	27(54)
Pain level during or after sexual intercourse	2(4)	2(4)	1(2)	13(26.5)	11(22.4)	20(41)

[a] Scores.

Table 7
Frequency of the scores for each variable of the sexual function

Domain	Postmenopausal without HRT ($n = 50$)						Postmenopausal with HRT ($n = 60$)					
	Fr(%), 0[a]	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]	Fr(%), 0[a]	Fr(%), 1[a]	Fr(%), 2[a]	Fr(%), 3[a]	Fr(%), 4[a]	Fr(%), 5[a]
Desire												
Frequency		8(16)	13(26)	13(26)	7(14)	9(18)		13(22)	9(15)	13(22)	5(8)	20(33)
Level		3(6)	15(30)	28(56)	4(8)	0		8(13)	7(12)	35(58)	9(15)	1(2)
Arousal												
Frequency		7(14)	12(24)	12(24)	6(12)	13(26)		7(12)	12(20)	13(22)	5(8)	23(38)
Level		7(14)	5(10)	32(64)	6(12)	0		6(10)	9(15)	32(53)	13(22)	0
Security		6(12)	8(16)	15(30)	14(28)	7(14)		5(8)	9(15)	17(28)	23(38)	6(10)
Satisfaction		5(10)	11(22)	10(20)	10(20)	14(28)		6(10)	9(15)	23(38)	10(17)	23(38)
Lubrication												
Frequency		7(14)	14(28)	9(18)	3(6)	17(34)		4(7)	12(20)	13(22)	6(10)	25(42)
Difficulty		7(14)	10(20)	7(14)	15(30)	11(22)		2(3)	3(5)	5(8)	14(24)	36(60)
Frequency to maintain		5(10)	16(32)	10(20)	3(6)	16(32)		3(5)	10(17)	16(27)	3(5)	28(47)
Difficult to maintain		3(6)	2(4)	8(16)	24(48)	13(26)		2(3)	2(3)	9(15)	10(17)	37(61)
Orgasm												
Frequency		7(14)	10(20)	15(30)	9(18)	9(18)		9(15)	9(15)	9(15)	11(18)	21(37)
Difficulty		4(8)	3(6)	9(18)	23(46)	11(22		2(3)	3(5)	8(13)	14(24)	33(55)
Ability to reach		10(20)	6(12)	1(2)	24(48)	9(18)		7(12)	3(5)	3(5)	16(26)	31(52)
Satisfaction												
Amount of emotional closeness with partner		10(20)	7(14)	3(6)	20(40)	10(20)		4(7)	6(10)	2(3)	26(43)	22(37)
Sexual relationship with partner		10(20)	8(16)	3(6)	17(34)	11(22)		6(10)	6(10)	0	26(43)	22(37)
With overall sexual life		7(14)	6(12)	2(4)	24(48)	11(22)		6(10)	4(7)	3(5)	24(40)	23(38)
Pain												
Frequency of pain during vaginal penetration	7(14)	10(20)	1(2)	11(22)	11(22)	10(20)	4(6)	3(5)	1(2)	7(12)	8(13)	37(62)
Frequency of pain after vaginal penetration	7(14)	7(14)	3(6)	0	15(30)	18(36)	4(6)	3(5)	1(2)	0	14(24)	38(63)
Pain level during or after sexual intercourse	7(14)	3(6)	2(4)	16(32)	13(26)	9(18)	4(6)	0	2(3)	5(8.7)	14(24)	35(59)

[a] Scores.

4. Conclusions

Age, level of education, the lack or presence of a sexual partner and the degree of satisfaction with the sexual partner, all showed a significant correlation with the sexual performance in the desire domain in middle age women. Desire, level of education, the lubrication, the degree of emotional closeness with the sexual partner (non-genital contact); the overall perception of sexual satisfaction with her partner and the hormone therapy, all showed a significant association with the performance in the orgasm in middle age women.

5. Discussion

Although the women in this sample were not patients; they attended to educational activities, but they were related with a menopausal clinic and therefore not constituted a general population sample. This aspect should have in mind for the analysis.

It is difficult to carry out studies that measure precisely the degrees of influence that biologic, psychologic, physiologic and cultural patterns have in sexual function as all of this factors interact between them. More so, evaluating these aspects in middle-aged women is even more challenging, since menopause, or the menopausal transition are present; an additional physiologic aspect to take into account.

Colombia is an developing country in South America with a fecundity rate of 2.6. The women are heads of family in 31.3% of the homes in the urban area. The 95.8% of the sexual active women have used some modern contraceptive method. Furthermore, the women are submitted to high level of domestic violence, physical and psychological [22].

There are few studies in middle age women addressing the factors that determine a good performance in the libido and orgasm. Besides, most of them are subjective similarly to our study. Some studies agree with our findings that age negatively affects desire in middle age women. Hallstrom and Samuelson [3] interviewed 677 married, middle-aged women, and 6 years later they interview again 497 of the original group who were cohabiting with a male partner, and reported a decrease of the libido associated with age. They found an association between desire and emotional support from the partner and quality of the marital relationship. Similarly Blümel et al. [7]; Dennerstein et al. [9] and Avis et al. [10] found negative association of the desire with age.

It is important to take into account that cultural patterns influence the aspects of sexual function, especially on what the women expect at this stage of life regarding the performance of their sexuality. The analysis of data from the French National Survey of sexuality [23] performed in 1970 and 1992 in which Delbes found that women > 50-years-old in 1992 reported a better sex life than did those of the same age group in 1970, suggesting a positive cohort social effect on sexual function. When cohorts were compared, in 1992 the frequency of sex had increased, and women reported a wider range of sexual activities, such as reaching orgasm by manual or oral caresses. The proportion of women in 1992 who reported they were very satisfied in their sex life had tripled. Meston argued in her review on aging and sexuality that lately and more frequently men and women remain sexually active well into later life. The extent to which aging affects sexual function depends largely on psychological, pharmacological, and illness-related factors, but it is important that they do not fall prey to negative folklore according to which decreased physical intimacy is an inevitable consequence of the passage [24].

The few investigation that have addressed to middle-aged women agree with our findings about of the lubrication and its influence in the pain domain and therefore, in the sexual performance in this aged group [9,10]. We did not find any study assessing the satisfaction of the women with their overall sexual life and specifically with the sexual partner, in middle-age. In our study, there was a strong association between the degree of satisfaction that women perceive from the amount of emotional closeness with their partners and the better scores in the orgasm domain.

About this aspect we must to consider that to get the orgasm besides of the adequate physical stimuli mainly in the genital area; mediate other pathways of the central nervous system which play an important role the perception of the women about emotions and relationship with their partners. Many women not get the orgasm because they do not demand to their partner the adequate sexual stimuli or not seek it; then they consider enough that their sexual partner had been satisfied; in spite of she was unsatisfied. Probably, it is

the result of the influence of cultural patterns, where the women comply with the sexual demands of their role determined by their sexual partners, in which the women do not have sexual enjoy. These patterns usually were learned and internalized in the family group mainly in the infancy and puberty.

Mc Cann Erikson in the survey about psychological profile in Colombia with 1000 women between 18 and 65-years-old, reported that 43% of women feigned sexual satisfaction; and the 65% reported that Colombian men did not have interest in satisfy sexually to their sexual partner, they were only interested to satisfy their selves. However, 89% of the women in the survey manifested as very important to have pleasant and satisfactory sexual activity with their partners. [25].

Currently, there is an special interest, in the androgen substitution to enhance sexual desire, in women with low bioavailable androgens levels, especially in women who have undergone oophorectomy [26–30]. But what this mean in terms of sexual satisfaction is not clear yet. Therefore, the routine administration of androgens to endocrinologically healthy women who have complaints of decrease of desire is not based on available evidence.

It is important to identify these associations between performance in the orgasm and libido domains and the above mentioned psychosocial aspects and aspects of sexual function. This will allow us to perform some simple and inexpensive interventions directed to improve vaginal lubrication with specific medicaments, offer educational champagnes to encourage men to understand what women expect of them emotionally and sexually, and promote the advocacy for women to demystify that sexuality is only for young people.

References

[1] Graziottin A. Libido: the biologic scenario. Maturitas 2000 January;34:S9–16.

[2] Hallstrom T. Sexuality and the climacteric. Clin Obst Gynecol 1977;4:227–39.

[3] Hallstrom T, Samuelsson S. Changes in women's sexual desire in middle life: The longitudinal study of women in Gothenburg. Arch Sex Behav 1990;19(3):259–68.

[4] McCoy NL, Davidson JM. A longitudinal study of the effects of menopause on sexuality. Maturitas 1985;7(3):203–10.

[5] Rosen RC, Taylor JF, Leiblum SR, Bachman GA. Prevalence of sexual dysfunction in women. J Sex Marital Ther 1993;19(3):171–88.

[6] Borissova AM, Kovatcheva A, Shinkov A, Vukov MA. study of psychological status and sexuality in middle-aged Bulgarian women: significance of the hormone replacement therapy. Maturitas 2001;39:177–83.

[7] Blümel JE, Araya H, Riquelme R, Castro G, Sánchez F, Gramegna G. Prevalence of sexual dysfunction in climacteric women. Influence of menopause and hormone replace therapy. Rev Med Chil 2002;130(10):1131–8.

[8] Dennerstein L, Smith A, Morse C, Burger HG. Sexuality and the menopause. J Psychosom Obst Gynecol 1994;15:59–66.

[9] Dennerstein L, Dudley E, Hopper J, Burguer H. Sexuality, hormones and the menopausal transition. Maturitas 1997;26:83–93.

[10] Avis NC, Stellato R, Crawford S, Johannes C, Longeope C. Is there an association between menopause status and sexual functioning. Menopause 2000;7(5):297–309.

[11] DSM-IV: diagnostic and statistical manual of mental disorders. Fourth ed. Washington, DC: American Psychiatric Association, 1994, p. 297–309.

[12] Third Annual Female Sexual Function Forum: New Perspectives in the Management of Female Sexual Dysfunction. 26–29 October 2000: Boston; Massachusetts. http://www.medscape.com/viewarticle/408933 in press.

[13] Harlow SD, Crawford S, Sommer B, Greendale Gail. Self-defined menopausal status in a multi-ethnic sample of midlife women. Maturitas 2000;36:93–112.

[14] Laumann E, Paik A, Rosen R. Sexual Dysfunction in the United States. JAMA February 1999;281(6):537–44.

[15] Rosen RC, Taylor JF, Leiblum SR, Bachmann GA. Prevalence of sexual dysfunction in women: results of a survey study of 329 women in outpatient gynecological clinic. J Sex Marital Ther 1993;19(3):171–88.

[16] Donnelly D. Sexually inactive marriages. J Sex Res 1993;30(2):171–9.

[17] Morokoff PJ, Guilliland R. Stress sexual functioning and marital satisfaction. J sex Res 1993;30:43–53.

[18] Laan E, van Lunsen RhJ. Hormones and sexuality in postmenopausal women. A psychophysiological study. J Psychosom Obstet Gynaecol 1997;18(2):126–33.

[19] Dennerstein L, Lehert P, Burguer H, Dudley E. Factors affecting sexual functioning of women in the mid-life years. Climacteric 1999;2(4):254–62.

[20] Female Sexual Function Index Questionnaire. http://www.fsfquestionnaire.com/FSF%200.pdf.

[21] Rosen R, Brown C, Heiman J, Leiblum S. A multidimensional self-report instrument for the assessment of female sexual function. J Sex Marital Ther 2000;26:191–208.

[22] Ojeda G., Ordoñez M., Ochoa L.H., Salud Sexual y Reproductiva en Colombia. Encuesta Nacional de Demografia y Salud. Bogota. Editorial Printex Impresores; 2000.

[23] 26th Annual Meeting of the International Academy of Sex Research. Paris. France. 21–24 June 2000. www.medscape.com/viewarticle/408920.

[24] Meston CM. Aging and sexuality. West J Med 1997;167(4):285–90.

[25] Acuña Cañas A. Sexo y Mujer. Pasado-Presente-Futuro. Bogota. Editorial Planeta; 1996.

[26] Davis SR, Tran J. Testosterone influences libido and well being in women. Trends Endocrinol Metab 2001;12(1):33–7.
[27] Davis SR. The clinical use of androgens in female sexual disorders. J Sex Marital Ther 1998;24:153–63.
[28] Apperloo MJ, Van Der Stege JG, HoeK A, Weimar Schultz WC. In the mood for sex: the value of androgens. J Sex Marital Ther 2003;29:87–102.
[29] Guay AT, Jacobson J. Decreased free testosterone and dehidroepiandrosterone-sulfate levels in women with decreased libido. J Sex Marital Ther 2002;28(Suppl. 1):129–42.
[30] Abdulmaged M, Traish, Nol Kim, Kweonsik Min. Ricardo Munarriz; Irwin Goldstein. Role of androgens in female genital sexual arousal: receptor expression, structure and function. Fertility Sterility 2002;77(S):11–7.