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Prevalence of Dyspareunia in Healthy Thai Perimenopausal Women

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ABSTRACT

Objective To assess the prevalence of dyspareunia in perimenopausal sample of healthy Thai women.

Design A cross-sectional descriptive study.

Setting Department of Obstetrics and Gynecology, King Chulalongkorn Memorial Hospital.

Methods 112 Women randomly selected from women between the ages of 40 and 55 presenting for gynecologic care at King Chulalongkorn Memorial Hospital.

Main outcome measurement The prevalence of dyspareunia was reported as percentage with 95 % CI.

Results The prevalence of dyspareunia was 44 %(95 % CI 43.2-44) for the past one year sexually active women who increased in economic problem, chemical use, duration of marital status, frequency of intercourse, dysmenorrhea, no contraception and abnormal PAP smear. Most dyspareunia occurred during intercourse (51%) in the past 3 years, located at vaginal entrance (55 %), mild degree (89%) and often affected themselves with caused by vaginal dryness (34%) according to their thought. 21 % of afflicted women had solved it by consulted physicians.

Conclusions A high prevalence of dyspareunia (44 %) for perimenopausal Thai Women was observed. The implication for clinical practice was that sexual health or problem should be inquired asked for a regular part of health care service and the physicians should be encouraged to initiate discussions about dyspareunia.

Key words: prevalence, dyspareunia, perimenopause

Sexual health is an important integral part of a person 's general health. Preliminary information, based on a limited number of community studies indicate that female sexual dysfunction is age-related, progressive and highly prevalent, affecting about two-thirds[1-6] of women or ranging from 25% to 99% in some study[6-21] or sexual concerns have been reported in 75% of couples seeking marital therapy. [22]

They are also enormously complex and increasingly in sexual problems,[23-26] especially, in the age of perimenopausal and menopausal women which is an important time in the female life span that is associated with varied physical and psychological symptoms. The study of sexual function has received

increasing research and clinical attention over the past three to four decades.[27-29] Many studies have documented that perimenopausal and menopausal women remain sexually active[30-32] but at a lower frequency and that the frequency and severity of sexual dysfunction increase with each passing decade.[33-40]

Dyspareunia is one of the most common sexual dysfunctions and is estimated to affect about two-thirds of women during their lifetime.[41-42] Many changes in physiology in perimenopausal and menopausal women caused vulvovaginitis, urinary tract infection and decreased lubricant which may cause dyspareunia in later.[41-45]

Dyspareunia was experienced by about 11.3% of women in Rosen RC's study[11] with 329 healthy women aged 18-73 years, 15% in Baram DA's[1] and 72-75 % in study of Nusbaum MR, Gamble G[47] and Nusbaum MR, et al.[19] Those studies were done in general women not in specific age groups. In menopausal women, Barlow DH's study[44] with the sample of 148 sexual active women aged 64-74 years and Berman JR's study[10] with 48 menopausal women aged 55-71 years, the prevalence of dyspareunia was 12% and 67%, respectively. In Thai, there was 24% of dyspareunia by Yamarat K's study.[48] with 31 women over 60 years. The incidence of dyspareunia is difficult to determine, since the majority of cases are unreported by patients but Semmens JP[35] reported 40% in premenopausal women.

Data on the prevalence of dyspareunia in perimenopausal women vary in many places, populations and in different time. Epidemiological data on the prevalence and severity of dyspareunia have been available for Western and Asian countries for some time. In Thai, prevalence data has not been previously published because there were few studies about sexuality according to the feeling of shame to talk about sexuality in old-aged Thai society but now changing cultural attitudes and demographic shifts in the population have highlighted the pervasiveness of sexual concerns. Thus, this study was carried out in pervasion of sexual concerns and in order to document the prevalence of dyspareunia in perimenopausal healthy Thai women. Another aims were to assess severity, duration and affect of dyspareunia in this population.

Materials and Methods

For practical purposes this study simply classify the perimenopausal status according to age from the epidemic of perimenopausal age group in Thai women (mean aged 48 years)[48] and we defined the terminology used of level (severity) of dyspareunia[43] as level 1 (discomfort but does not prevent sexual intercourse), level 2 (sometimes prevents sexual intercourse) and level 3 (prevents sexual intercourse). This study was approved by the ethics committee of the Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand.

Study Population

This cross-sectional study conduct in over a period of 3 months (January-March 2003). It is a representative sample of 112 participated women, between the ages of 40 and 55 years of Healthy Thai women, presenting for gynecologic care such as family planning, annually check up, menopausal or gynecologic clinic at King Chulalongkorn Memorial Hospital. The inclusion criteria are marital status and regularly stay with her couples, missed period not more than 1 year (if there was), healthy women confirm by physical and pelvic examination are normal and all women gave their written informed consent. We excluded pregnant and who had history of previous pelvic surgery or underlying disease such as medical disease or psychological disease.

Questionnaires

We developed a 3-page questionnaire. A multiple-choice format was chosen with some room for personal comments. The questionnaire was pilot tested on a sample of 20 women; these women did not take part in the final study. The questionnaire had 4 parts; first part was socio-demographic characteristics included respondent' s age, religion, educational level, occupation, income and problem in outcome level; second part was obstetric, gynecologic

and personal history included parity status, dysmenorrhea, contraception and drug-chemical user; third part was sexuality included marital history, satisfactory in relationships, frequency of sexual intercourse and clinical features about dyspareunia such as location, severity, causes, duration, effect and therapies ; the last part was about physical and pelvic examination. The questionnaire had performed content validity from 3 specialists but reliability test was not necessary tested because it was the questionnaire about fact.

Methods

Our study populations were asked to take part in the study. Each respondent was surveyed in person by interviewer to complete a questionnaire in a separate room. After finishing the questionnaire, they were examined in general physical and pelvic examination and performed PAP smear if there were no result in the past 1 year.

Statistical analysis

Descriptive and statistical calculations were run on all data where appropriate. The SPSS/PC for Window (Version 10.0), a statistical package program, was utilized to analyze data. The sample size was calculated by using the formula for descriptive study (P=0.5, d=0.1). The number of participants was approximately 100 cases. All data were coded, recorded and analyzed by the investigators. The descriptive statistics were percentage, mean and standard deviation. The main outcome was reported as percentage with 95% CI.

Ethical Aspects

To obtain the participants' informed consent, we explained the objectives and general procedures of our research to them as well as their right to drop out at any given moment with no ensuing change in the quality of the medical care they would continue to receive. Our study did not endanger the participants' life nor worsened their health condition; therefore, we did not violate ethical norms or individual human rights. The questionnaires and clinical and laboratory exams used in our study contributed to a better understanding of the patients' clinical record and situation.

Results

A total of 112 healthy Thai perimenopausal women aged 45.7 $\pm$ 3.53 (range 40 - 55) years (demographic characteristics are shown in Table 1) presenting for gynecologic care (family planning, annually check up, menopausal and gynecological clinic) at King Chulalongkorn Memorial Hospital completed questionnaires assessing dyspareunia. Parity of these women was 2 $\pm$ 1.1 (range 0 - 5) and BMI 21.9 $\pm$ 3.46 (range 17.3 - 40.6) Kg/m^2. Their husband's age was 49 $\pm$ 6.56 (range 33 - 68) years, 24% with illness and duration of marital status was 21.7 $\pm$ 6.65 (range 3 - 36) years. 4(3.6%) of responders had not had sex at all during the previous one year (they did not tell the reasons) and 23 (20.5%) reported having sex four times a month (max 25, min 0). Among 108 (96.4%) sexually active in the past 1 year, the main results were that 47 (43.5%) (95 % CI 43.2-44 %) had dyspareunia.

Table 1. Characteristics of subjects

Characteristics	Number (N=112)	Percent
Religion		
Buddist	107	95.5
Christian	3	2.7
Islamite	2	1.8

Characteristics	Number (N=112)	Percent
Educational level		
Primary level	51	45.5
Secondary level	19	17
Bachelor	21	18.8
Master	4	3.6
PhD	1	0.9
No attainment	5	4.5
Other	11	9.8
Occupation		
Employee	38	33.9
Housewife	27	24.1
Government	23	20.5
Business	15	13.4
Agriculture	8	7.1
Other	1	1

There were no differences with various demographic characteristics, including both participants and partners age, religious affiliation, educational attainment, occupation, parity, drug abuse, illness of partner, satisfactory in relationships (Table 2) and physical and pelvic examination result in women with or without dyspareunia (Table 3).

Table 2. Satisfactory in relationship

Satisfactory in relationships	Number (N=112)	Percent
Very poor	2	1.8
Poor	2	1.8
Moderate	46	41.1
Good	52	46.4
Very good	10	8.9

Table 3. No differences characteristics

Characteristics	Dyspareunia	No dyspareunia
Age - Participants	46.17 $\pm$ 3.75	45.41 $\pm$ 3.42
- Partners	49.40 $\pm$ 6.65	48.33 $\pm$ 6.35
Religion	Buddist(45/108)	Buddist(59/108)
Educational level	Primary (46.8%)	Primary (45.9%)
Occupation	Employee(34%)	Employee(32.8%)
Parity	2(38.3%)	2(37.7%)
Drug abuse	No(91.5%)	No(90.2%)
Illness of partner	No(74.5%)	No(77%)
Satisfactory in relationships	Moderate (42.6%)	Good(52.5%)
Physical examination	Normal(100%)	Normal(100%)
Pelvic examination	Normal(98.4%)	Normal(100%)

Table 4, compared with women without dyspareunia, dyspareunia was increased in women with low household income and stress from economic problems (38% & 29%) in her family, some related to increasingly chemical use at genitalia such as vaginal douches, gel, hormone, vaginal supposition (21%&5%), duration of marital status, frequency of sexual lovemaking. 40 % of dyspareunia women experienced dysmenorrhea but most were very mild. About contraception (Table 5), dyspareunia women take pill and tubal sterilization less than women without dyspareunia but no contraception was more over. Some cases (8.5 %) were correlated to abnormal PAP smear.

Table 4. Differences characteristics

Characteristics	Dyspareunia	No dyspareunia
Economic problem	38%	29%
Chemical use at genitalia	21%	5%
Duration of marital status	26 years	20 years
Frequency of love making	5 times a month	4 times a month
Contraception - No	17%	10%
- TR	43%	53%
- Pill	2%	8%

Table 5. Contraceptive use of subjects

Contraceptive methods	Number(N=112)	Percent
Pill	6	5.4
DMPA	7	6.3
Norplant	1	0.9
IUD	11	9.8
Condom	9	8
Period	4	3.6
Withdraw	2	1.8
TR	53	47.3
Vasectomy	4	3.6
No	15	13.4

Among women with dyspareunia (47 in 108 women) we found that 51% had pain during the course of lovemaking, 34 % after and 15% at the beginning of lovemaking. Most common locations of pain was at vaginal entrance (55.3%) (Table 6). Most women had level 1(discomfort but does not prevent sexual intercourse) (89%), more than level 2 (sometimes prevents sexual intercourse)(11%). The most common causes of dyspareunia according to subject's opinion were vaginal dryness and lack of sexual desire 53.1% (Table 7). Duration of the problem was that 92% had dyspareunia during the 3 years before the study which only 8% had this problem since the onset of sexual activity. 28% of dyspareunia women said they had the affect from this problem, most affect themselves (54%) more than couples (46%). Even through these women awared about their disorder and its negative impact on their lives, in an examination of

help-seeking behavior, we found that only 21% of afflicted women had corrected it and 50% in this group had already consulted physicians because of this problem. Women with dyspareunia usually discuss the pain with their sexual partner (83%).

Table 6. Location of dyspareunia

Location	Number (N=47)	Percent
External genitalia	2	4.3
Vaginal entrance	26	55.3
Midvagina	8	17
Deepest of vagina	5	10.6
Lower abdomen	6	12.8

Table 7. Causes of dyspareunia due to subject's opinion

Causes	Number (N=47)	Percent
Vaginal dryness from inadequate lubrication	16	34
Unknown	15	31.9
Lack of sexual desire	9	19.1
Lack of stimuli	4	8.5
Fear of STDs*	1	2.1
Other	2	4.3

* STDs Sexual transmitted diseases

Other results in this study, we also found that there were 7(6%) women who have no contraception and no children, 12% of women with drug abuse (most alcohol use 61%) and 76% of PAP smear covered in the past 1 year of our participants.

Discussion

This study shows that dyspareunia is widespread among perimenopausal women. These results are strikingly similar to the exceeds prevalence found by other authors. Our results (dyspareunia 44%) confirm the survey of Semmens JP[35] reported 40% of incidence of dyspareunia in premenopausal women, Berman JR[10] evaluated 48 menopausal women in 1999 with complaints of sexual dysfunction reported 67% with pain or discomfort during and/or following intercourse and in non specific age group of general women, Nusbaum MR survey of 964 women by mail reported 72%[19] had dyspareunia and 75% in 232 responded mail survey.[46]

To understand the factors that predispose individuals to dyspareunia in perimenopausal women, which we know that sexuality in the aging female is not only influenced by physical changes, but also by psychological, emotional and sociocultural factors are just as important. So we should analyze many risk factors; deterioration in economic position induces higher level of stress, which in turn affects dyspareunia. The use of chemical irritant at genitalia may be a risk factor. Increment in duration of marital status and frequency of lovemaking may associated with unsatisfying personal experiences and relationship of couples and can increase the opportunity of dyspareunia. Dyspareunia occur in some women without contraception use that may cause the stress or anxiety of pregnancy or some had infertile problems which associated to any pathology or there are certain benefit of hormonal use in women

who had contraception and no dyspareunia. Other factors affecting sexual functioning in menopausal transition women were feelings for the partner, the partner's sexual problems, and social variables such as work, interpersonal stress and daily hassles.[49] We found that most dyspareunia was acquired which occur during 3 years before study in perimenopausal period which may affect by aging process involving many normal physical changes such as lack of lubrication caused vaginal dryness similar to their believes or more by culture and attitudes than by nature and physiology (or hormone).

In this study most of the pain location was at vaginal entrance which may be associated with vulvodynia, atrophy, inadequate lubrication, vaginismus, rigid hymenal ring, scar tissue in an episiotomy repair, a mullerian abnormality, vaginitis, bartholin gland inflammation, radiation vaginitis, human papillomavirus infection, urethral syndrome, cystitis, vaginal trauma, chronic constipation and proctitis.[1]

The present study highlights some of the dyspareunia features of a sector of Thai women going through the climacteric, and provides some insight to the clinician into the management of women in this age group. There are, however, certain limitations of the present study that require elaboration; the terminology of dyspareunia not clearly defined because it had many classification and must be differential diagnosed from vaginismus, inadequate lubrication, atrophy and vulvodynia (vulvar vestibulitis).[50] It is difficult to decide on the age range of perimenopausal women to be included in this study because it was very wide which can include many confounders and wake criteria or if we determine other clinical features of this group, these are vary individual and no definite characteristics so we classify the perimenopausal status according to the epidemic of perimenopausal age group in Thai women.[48] Normal physical and pelvic examination may not be healthy women because there are some physical or psychological problems which are not be evaluated. The genuineness of the randomness is doubtful; the problem of sample bias or selection bias could not be excluded. Well-off female patients usually see gynecologists for any "women-related" problems including gynecologic problems. So this study found that a quarter had complete tertiary education which is rather high rate for general population, this situation explained from well self-care in educated women for annually check-up and high rate of check up PAP smear in the past 1 year. Most were primary level of education or less educated women locally tend to have the idea that only women doctors can deal adequately with "women problems" and feeling of shame keeps participants from talking about sexuality, so we can deal with such sample bias because our interviewer was woman doctor. In face-to-face interviews, are subject to underreporting biases arising from personal concerns about social stigmatization[4] and different from mail survey by Nusbaum MR study[19,46] which might be effect to different prevalence.

In this study, we do not suggest that all patients suffering from dyspareunia require treatment but we found surprisingly few women have consulted a physician raising the question of why this is the case and what can be done about it similar to study of Danielesson I, et al.[51] Therefore, a women should tell her doctor if she may have to see a specialist but some studies suggest that less than half of patient's sexual concerns are unaware of how common sexual concerns are among patients.[46] Because women rarely seek medical assistance to discuss problems of sexuality; thus; it is important that a review of systems include questions about sexual functioning especially in certain conditions, such as occupational stress, which may be associated with dyspareunia, should encourage the physician to initiate discussions about dyspareunia. Even attitudes to sexuality in society are becoming more relaxed. Many doctors, however, find it difficult to discuss the sexual details of their patient's lives.[52]

A crucial role of physician is to counsel and educate perimenopausal patients about the diverse and often bothersome changes that can accompany the climacteric. To overcome problems such as lack of

knowledge or feelings of shame and inadequacy, we should providing progressive medical education that teaches sexual health care as integral to basic medical education as well as in continuing medical education and health care in physicians to proactively and routinely address sexual health also, key questions on how to start and maintain discussions on sexuality should be developed, evaluated and then rehearsed.[53] Some studies show that training in human sexuality and routinely taking sexual histories can increase physician comfort with addressing sexual health[54] and the comprehensive multimodality approach may be necessary.[1]

This problem warrants recognition as a significant public health concern, in the affected population rarely receiving medical therapy for dyspareunia, service delivery efforts should be augmented to target high-risk populations,[4] so we should have a significant impact on both public health policy and individual patient care by helping women make informed choices about the plethora of available treatments that will affect their quality of life.

Although the present results of this simple study may not be generalisable or applicable to other sample populations in Thai due to possible sample and selection bias and a relatively small sample size, but this simple cross-sectional study could serve as a baseline for further larger-scale, multi-center longitudinal studies of premenopausal women through the climacteric years may determine many associations more precisely and multiple specialist should work together to formulate standard definitions that can be applied to large population groups to obtain reliable and valid estimates at the prevalence of dyspareunia in the community. In this way, the true burden of disorder can be established.

In conclusions, dyspareunia was common condition affected women's sexual functioning during the mid-life years. The results demonstrated a high prevalence of dyspareunia (43.5%) (95 % CI 43.2 - 44 %) for women enrolled for health but the severity was mild often occurred at perimenopausal period and a few women were affected. Suggesting that this problem has impact on perimenopausal women in Thailand and thus probably there is some need for implication of clinical practice is that sexual health or problem inquiry should be ask for a regular and important part of health care service and the physicians should be encouraged to initiate discussions about dyspareunia.

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