



CHRONIC PELVIC PAIN; THE FREQUENCY AND CORRELATES IN YOUNG EDUCATED WOMEN.

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ABSTRACT... Objectives: To determine the frequency and associated risk factors of chronic pelvic pain (CPP) in educated women under 30 years of age. **Study Design:** A cross sectional study. **Setting:** North Nazimabad and Gulshan e Iqbal towns of Karachi. **Period:** January to July 2017. **Method:** Data was collected through convenient sampling. Informed verbal consent was taken before data collection. A questionnaire was used to collect demographic and obstetric data. Screening of Anxiety and depression was done using standard tool Hospital based anxiety and depression scale (HADS). Result were analyzed on SPSS. **Result:** The mean age of women were 25 years, SD = 4.31. The frequency of chronic pelvic pain was 29% (116). Gynecological cause was found in 68.9% (80). Irritable bowel syndrome was seen in 9% (36) women. Significant association of CPP was noted with Dysmenorrhoea (p-value=0.00, OR=.207), Dyspareunia (p-value = .000, OR = .166), Heavy menstrual flow (p-value = .033, OR = .333), married (p-value = .000, OR = .414), Vaginal discharge (p-value = .000, OR = .260), Anxiety (p-value = .000, OR = .300), depression (p-value = .002, OR = .452), Normal mental status (p-value = .000, OR = 2.488), Irritable bowel syndrome (p-value = .000, OR = .169) and PMS (p-value = .000, OR = .438). **Conclusion:** Frequency of chronic pelvic pain is high in young educated women. Gynecological causes, irritable bowel syndrome and psychological disorder are significantly associated with CPP.

Key words: Chronic Pelvic Pain, Prevalence, Young Women, Epidemiology.

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INTRODUCTION

Chronic pelvic pain (CPP) is a neglected worldwide problem. It has psychological and social impact affecting women's marital and professional lives.^{1,2} The condition is also a great burden on economy of country reported to be costing over a billion dollar per year in one study and lead to an increase in outpatient attendances.³ The direct cost for outpatient visit of such women was estimated to be approximately \$881.5 million per year.^{4,5,6}

The prevalence vary in different countries between 5.7% to 26.6% (7). Previously Latthe P etal⁸ reported prevalence until 2004 in less developed countries of South East Asia as 5.2% in India, 8.8% in Pakistan and 43.2% in Thailand. He also reported prevalence of 15% and 24% in reproductive age group in USA and UK respectively. Variation in prevalence was largely

attributed to different study designs, age group and rather than characteristics of population itself.

There may be visceral and somatic disorders (genital, urinary or gastro intestinal tracts) or psychological or neurological disorders accounting for this debilitating condition.

The disease is poorly understood because of unclear etiology and consequently inadequately managed.⁹ The response to therapy is therefore usually poor.

Due to culture poverty and ignorance women are often reluctant to seek medical advice for a problem which is significantly disturbing their quality of life and had significant Psychological and socio economic implications.¹⁰

This is challenge for health authority to take

needed action to lessen suffering from this devastating condition.

The estimation of actual magnitude of problem in any population will be helpful to make grounds for future studies and to know the exact etiology. It will also help concerned authorities in resource allocation and health planning.

WHO⁸ has emphasized the need for population based studies to know the prevalence of disease particularly in developing countries. In a systemic review of world literature on chronic pelvic pain it was found that only 20% studies were from less developed countries 2.2% from least well develop countries as compared to 51.2% from developed countries.

We therefore aimed to conduct the study to determine frequency of chronic pelvic pain and its correlates in young educated women.

METHODOLOGY

A Six month cross sectional study was conducted to study the frequency of chronic pelvic pain (CPP) in young educated women under 30 years of age in North Nazimabad and Gulshan e Iqbal towns of Karachi. The study period was from January 2017 to July 2017.

North Nazimabad has highest women literacy rate compared to other towns of Karachi.¹¹ It has 20 blocks. Majority of population is Urdu speaking.

Gulshane Iqbal town has residents of different ethnic groups. It has 13 union councils .The population of each town is nearly one million. The exact figures of educated young women under 30 years of age is not Known.

Gender ratio (male per 100 female) of Sindh is 112.24.

Research was approved by ethical review board MamJi Hospital Karachi.

Sample size was calculated as 260 with 25% confidence interval, precision rate of 5% with prevalence rate of 21.5%.¹² Four hundred women

were recruited in the study to get precise result. Sampling technique was convenient sampling. Data was collected by doctors and paramedics of Mamji hospitals and authors. Questionnaires used were discussed with the interviewers by the authors before data collection.

Due to security reasons areas near own, relative or family friends' houses were visited. Women were also contacted for interview on telephone or Skype. Verbal consent was taken before data collection.

Instruments used were a questionnaire for recording demographic and obstetric characteristic along with consent forms in local language.

Screening for anxiety and depression was done using standard hospital based anxiety and depression scale (HAD).¹³ HAD has a seven-item subscale with four-point scale for each item. HADS as a screening tool offers a practical solution for detecting anxiety and depression in a busy antenatal clinic or a large epidemiological survey.¹⁴

Pain was assessed on Visual Analog Scale (VAS) Women were divided in two groups based on presence or absence of chronic pelvic pain.

Inclusion criteria were Women and girls of 12 – 30years of age with secondary or tertiary education.

Exclusion criteria were Pregnant women or recently pregnant within last twelve month. women above 30 years and below 12 years, Prepubertal girls and Women with primary education or illiterate.

Chronic pelvic pain (CPP) is defined as intermittent or continuous pain in lower abdomen at or below the Umbilicus or the pelvis that last for at least six month, is not exclusively related to menstruation or intercourse and is sufficiently severe to interfere with routine activities or need medical care

Premenstrual syndrome (PMS) is defined as a

condition with emotional, physical and behavioral symptoms that increase in severity during the luteal phase of the menstrual cycle, and in severity during the luteal phase of the menstrual cycle, and resolve by the end of menstruation.

IBS was defined as abdominal pain (more than once a month) in the past three months and at least two of the following characteristics; 1) relief with defecation, 2) onset associated with a change in frequency of stool, 3) onset associated with a change in form (appearance) of stool.

Variables considered on the basis of risk factors^{8,15} leading to chronic pelvic pain were age, employment and marital status, details of menstrual cycles, PMS, urinary and bowel symptoms, BMI, CPP, anxiety and depression, smoking, where applicable parity, dyspareunia contraception and history of sexual abuse.

Result was assessed on SPSS version 16. Frequency and mean was calculated using descriptive analysis. Binary and multinomial regression were used to assess the significance of association of different variables with CPP

RESULT

The study group comprises of 400 educated women under the age of 31 years.

The mean age of women were 25 years, SD = 4.31.

As shown in Table-I, 226(56%) women were Urdu speaking. Sindhi and Punjabi were next frequent group comprises of 17 & 16% women respectively. Working women were 116 (29%) and 71% were unemployed.

The frequency of chronic pelvic pain was 29% (116). The frequencies of Dysmenorrhoea and dyspareunia were 50% (200) and 21 % (84) respectively.

Vaginal discharge was seen in 92 (23%) and PMS in 220 (55%) women of study group.

Gynecological causes of CPP were found in

68.9% (80). Fifty four percent (216) women were married where as 46% (184) were unmarried.

Irritable bowel syndrome was seen in 9% (36) women.

Bowel symptoms other than irritable bowel syndrome were reported by 6% (24) of women. Urinary symptoms were present 10% (40) women. In 6.89% cause remains unknown. Mixed symptoms were reported in 24.13% (28) cases.

Table 2 shows that significant association of CPP was noted with gynecological factors such as Dysmenorrhea (p-value=000, OR= .207), Dyspareunia (p-value = .000, OR = .166), Heavy menstrual flow (p-value = .033, OR = .333), married (p-value = .000, OR = .414) and Vaginal discharge (p-value = .000, OR = .260). PMS (p-value = .000, OR = .438).

Regarding mental health significant association was observed with Anxiety (p-value = .000, OR = .300), depression (p-value = .002, OR = .452), Normal mental status (p-value = .000, OR = 2.488), Among gastrointestinal disorders Irritable bowel syndrome showed significant association with CPP (p-value = .000, OR = .169), Urinary symptoms did not show significant association with chronic pelvic pain.

BMI, parity and contraception did not show significant association on regression analysis. Variable, history of sexual abuse, not responded by women was excluded from the study. Smoking a rare observation in the study group was also excluded from the study.

DISCUSSION

Our study group comprises of young educated women of middle socioeconomic class. The frequency of chronic pelvic pain was high 24% in our study. This is much higher than the Prevalence of CPP in Pakistan in 2004 which was reported to be 8.8% in WHO study.⁸ It was also higher than the frequency reported in a study on participants of an urban health screening project in Austria.¹⁶ However frequency of CPP in our study group was comparable to prevalence of

26.6% in Egypt.¹⁷ There is a need for population based study of chronic pelvic Pain in women in Pakistan.

Mean age	25 SD = 4.31,	
Ethnicity	No	%
Urdu speaking	226	56
Sindhi	68	17
Punjabi	64	16
Pashto	28	7
Bloch	8	2
Others	8	2
Employment status		
Employed	116	29
Unemployed	284	71
Marital status		
Married	216	54
Unmarried	184	46
PMS	220	55
Vaginal discharge	92	23
Dysmenorrhea	200	50
Dyspareunia	84	21
Chronic pelvic pain (CPP)	116	29
Cause of CPP		
Gynae related	80	68.9
Irritable bowel syndrome (IRB)	36	9
Other Bowel Reared Symptoms	24	6
Urinary Symptoms	40	10
Mixed symptoms	28	24.13
Unknown	8	6.89

Table-I. Frequency of chronic pelvic pain and characteristic of the study group n= 400

Risk factors	no (%) in CPP group	p - value	OR
Dysmenorrhea	88 (75.9)	.000	.207
Dyspareunia	52 (65)	.000	.166
Heavy menstrual flow	20 (17.2)	.033	.333
Married	20 (69)	.000	.414
Vaginal discharge	48 (41.1)	.000	.260
Anxiety	44 (37.9)	.000	.300
Depression	36 (31)	.002	.452
Normal mental status	72 (62.1)	.000	2.488
Irritable bowel syndrome	24 (20.7)	.000	.169
PMS	80 (69)	.000	.438

Table-II. Factors showing significant association with CPP

The mean age in our study was 25 SD = 4.31. This is near to the mean age of study from India¹⁸ which showed that highest percentage of CPP (37 % cases) were in age group between age 25 – 30 years in porous women of middle socioeconomic class (55%). As our study population was similar to high risk group of this study, it could be one of the reasons of higher frequency of CPP in our study as compared to prevalence of CPP in Pakistan in 2004. Difference in prevalence or frequency could be due to different study type and design and different age group.¹⁹

Jamison and Steege¹⁵ observed in a question ere survey higher frequency of CPP in young women. He noted that 44% women in 18-25 years and 49% in 26 – 30 years of age had CPP as compared to 22% in 36 – 40 years and 37% in 41- 45 years of age.

He further noted that that income, marital status education or parity did not show significant association with CPP. Our study group also did not show any significant association with parity but in contrast it did show significant association with marital status (p- value .000, OR = .414) as married women had higher frequency of CPP.

Dysmenorrhea showed significant association with CPP in our study. Prevalence of dysmenorrhea varied in different studies. It varied from 67% - 90% in young women aged 17 to 24 years of age.²⁰ A large population based study on teenagers in Australia showed 97% prevalence of CPP in high school girls. The prevalence of dysmenorrhea in reproductive age group is higher globally than the symptoms of CPP and dyspareunia.

Dyspareunia was reported by 21% women in our study group. A Swedish survey²² showed forty nine percent young women reported painful intercourse emphasizing the need to explore this problem in young women.

The debilitating pain conditions CPP, Dysmenorrhea and dyspareunia impair the quality of life of young women, decrease work productivity, and cost more with resulting economic loss. Frequency of PMS is 55% in our

study group higher than the reported prevalence of 40%.²³

Twenty three percent women had vaginal discharge in the study group. This correlates well with the prevalence reported from South East Asia of quarter of women having complain of vaginal discharge.²⁴ Vaginal discharge and heavy menstrual bleeding showed significant association with CPP in our study. Latthe P et al observed that the clinically suspected pelvic inflammatory disease was found to be a risk factor for all the three types of pain i.e. CPP, dysmenorrhea and dyspareunia and heavy menstrual bleeding was associated with dysmenorrhea and CPP.²⁵ However in contrast to his study parity and BMI in our study did not show significant association with CPP.

Globally Irritable bowel syndrome (IBS) affects 12% of population with female preponderance.²⁶ In our study group 9% of women were affected by IBS where as 20.7% of women with CPP presented with this disorder. This is similar to study of Choung et al who reported 22% of women met Rome criteria for irritable bowel syndrome in their population based study of CPP.²⁷

Our study group showed frequency of anxiety, depression and normal mental status to be 44%, 36% and 72% respectively. Normal status was protective for CPP whereas anxiety and depression was significant risk factors for CPP. The frequency of anxiety was much higher than its prevalence in a study by Dick ML who showed anxiety 10-20% and depression 25-50%.²⁸ Frequencies of anxiety and depression are on rise in Karachi during last ten years probably due to law and order situation of city.²⁹

Twenty percent of women showed mixed symptoms of gynecological and bowel or urinary symptoms in our study. CPP is therefore a debilitating condition of possible multi factorial etiology.

Prospective studies for the prevalence chronic pelvic pain in young women should be conducted particularly in developing countries where there is

a dearth of such studies. These studies will help to assess the magnitude of the disease burden and to understand its etiology. It will also help health authorities to allocate budget for preventive and interventional strategies.

Our study highlight needs to conduct prevalence studies in our population particularly in young women. Every possible preventive measure should be initiated by health authorities to lessen the suffering of young women. It is important for health care provider to consider IRBS as a possible cause of CPP in women in addition to other causes. Screening of anxiety and depression should be considered as a part of preventive medicine in women health wellbeing program. They should be further guided to opt for adaptive coping strategies which show significant association with normal mental health status.³⁰

Limitation of study was not able to cover the population of Karachi due to limited budget and security issues.

CONCLUSION

Frequency of chronic pelvic pain was high in young educated women. Gynecological disorders, Irritable bowel syndrome and psychological disorder such as anxiety and depression were identified as the risk factors for this debilitating condition.

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
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Coffee and love taste best when hot.

– Unknown –

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Syeda Rabia	Wrote the draft and did data analysis and interpretation of final drafting.	
2	Naeem Akhtar Qureshi	Help in data analysis interpretation and final drafting	
3	Afsha Shahid	Help in data analysis, Interpretation and final drafting	
4	Hira Afreen	Assist in data collection, Analysis and final drafting.	