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Prevalence of Pelvic Floor Disorders among women above 40 years

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ABSTRACT

Background: Pelvic floor symptoms are more prevalent among females. Evaluation of PFD used to identify and amplify early diagnosis and to assist the professionals in monitoring these symptoms, even when they are poorly perceived or not explained by the patients. Efforts need to be intensified to create awareness and build capacity to prevent and manage these symptoms, which could impact the QOL of affected women. **Purpose:** To determine the prevalence of pelvic floor disorders among women above 40 years in Chidambaram. **Methods:** Hundred women in the age group between 40-60 years were included in this study. The basic characteristics and anthropometric data were collected through the structured proforma. The Pelvic Floor Disability Index (PFDI) was used to assess the pelvic floor dysfunction. The data were collected and analysed using descriptive statistics. **Results:** The mean value of Pelvic Organ Prolapse Component (POPDI-6) was 18.76± 7.42, the mean value of Colo-rectal anal distress inventory (CRAD-8) was 15.19± 8.29. The mean value of Urinary Distress Inventory (UDI-6) score was 23.18± 11.77. The mean total score of PFDI was 37.08± 23.05. From the results it was observed that the mean value of UDI was higher than the POPDI and CRAD. **Conclusion:** The study concluded that urinary distress (UDI) is more prevalent followed by pelvic organ prolapse distress (POPDI) and colorectal anal distress (CRADI) among the women above 40 years. This study recommends the effective therapeutic program to reduce the symptoms of PFD among women above 40 years.

Keywords: Pelvic floor disorder, Pelvic floor Disability Index, Pelvic organ prolapse, Elder women.

INTRODUCTION

Pelvic floor disorders (PFD) are considered a major public health problem affecting the quality of life (QoL) which includes Pelvic organ prolapse (POP), Urinary incontinence (UI), and Colorectal dysfunction (CRD). PFD in elder women leads to various psychosocial problems including anxiety, frustration, embarrassment, loss of self-esteem, and discomfort along with the economic costs[1,2]. Population based studies revealed that the prevalence of

PFD conditions varies widely both in developed and in developing countries. [3-5] Pelvic floor disorders (PFDs) affect 23%–49% of women in general, with an increasing incidence estimated to 43.8 million cases in 2050 in developed and developing countries, resulting in negative repercussions (emotional and physical) on women's quality of life (QOL).[6-9] Pelvic floor dysfunctions (PFDs) affect the female population in different age groups. Women above 40 years are more vulnerable. Aging decreases muscle strength including pelvic floor muscles (PFM) and consequently could result in urinary and fecal incontinence.

Development of disease-specific questionnaires like Pelvic Floor Distress Inventory (PFDI) facilitates the evaluation of PFD and find out the effect of PFD on QoL in elder women. [10,11] The application of this questionnaires enables objective measurement related to the prevalence and the impact of PFD on a woman's daily life. The PFDI- 20 is a short form which includes three subscales of 20 questions about a broad range of pelvic floor symptoms. Each question addressing Pelvic disorders including pelvic organ prolapse, Colorectal Anal distress, and Urinary distress. Barber et al (2005) stated that PFDI-20 has been found to correlate highly with the longer questionnaire, and its test-retest reliability is good to excellent.[12]

Pelvic floor symptoms are more prevalent among elder females and could be a pointer to the quality of obstetric care available. Efforts need to be intensified to create awareness and build capacity to prevent and manage these symptoms, which could impact the QoL of affected women. Estimation of the prevalence of PFD is important for several reasons including assessing the public health burden of women above 40 years. It is very important to identify the early onset or aggravation of the disease. Early identification of the symptoms and the impact on quality of life should be evaluated with appropriate instruments. The aim of this study was to investigate the prevalence of PFD among women above 40 years. The present study was conducted to determine the degree of pelvic floor disability among women above 40 years in Chidambaram.

MATERIAL AND METHODS:

A cross-sectional study (descriptive type) was conducted between the periods from April 2022 to September 2022. The study was carried out in community setting in Chidambaram. 100 women in the age group between 40-60 years were included in this study through convenient sampling method. The inclusion criteria were age between 40 – 60yrs, females, women who are all willing to participate and exclusion criteria; History of acute inflammatory disease, history of recent fracture, history of recent neurological and orthopaedic surgeries, acute illness, not willing to participate. The purpose of the study was clearly explained, and informed consent was obtained before the study. Baseline measurements were recorded for the following parameters: age, sex, height, weight, BMI, habit of doing physical activities. Pelvic Floor Distress Inventory (PFDI-20) questionnaire was used to quantify the symptoms related to pelvic dysfunction. The (PFDI-20) include various domains, such as Pelvic Organ prolapse Distress Inventory 6 (POPDI-6), Colorectal-Anal Distress Inventory 8 (CRAD-8), Urinary distress Inventory 6 (UDI-6). The data were collected and analysed using descriptive statistics.

STATISTICAL ANALYSIS AND RESULTS:

This study aimed to determine the prevalence pelvic floor disorders among women above 40 years. Pelvic Floor Distress Inventory (PFDI-20) questionnaire was used to evaluate the symptoms related to pelvic dysfunction. Descriptive statistics was done, and Chi square test was used to find out the correlation between anthropometric measurements (BMI) and pelvic floor dysfunction. 100 women were included in the study between the age group 40-60 years. which is displayed in fig-1. The age distribution of the study population (fig-1) shows that most of the population (51%) observed in the age group of 40-45 and least number of women (15%) observed in the age group of 56-60 and equal number of women (17%) observed in the age group of 46-50 and 51-55. Fig -2 displayed the working and non-working status of the study population shows that 54% of the study population were working and 46% were home maker. It is inferred from results that most of the study women were not involved in physical activity 72% and only 28% of women doing regular physical activity. Table-1 describes the mean and standard deviation of study variables BMI and PFDI which comprises Pelvic Organ prolapse Distress Inventory 6 (POPDI-6), Colorectal-Anal Distress Inventory 8 (CRAD-8), Urinary distress Inventory 6 (UDI-6). It is inferred from table 1 that mean BMI of the study patients was 25.93± 3.71. The mean pelvic organ prolapse component(POPDI-6) score was 18.76± 7.42. The mean Colo-rectal anal distress inventory (CRAD-8) score was 15.19± 8.29. The mean urinary distress inventory (UDI-6) score was 23.18± 11.77. The mean total score of PFDI was 37.08± 23.05 which displayed in fig-3. Table 2 displayed the correlation of BMI with the Pelvic floor disability index, which is inferred that there was no significant correlation was observed between the BMI and individual component of pelvic floor disability index as total pelvic floor disability index (p> 0.05).
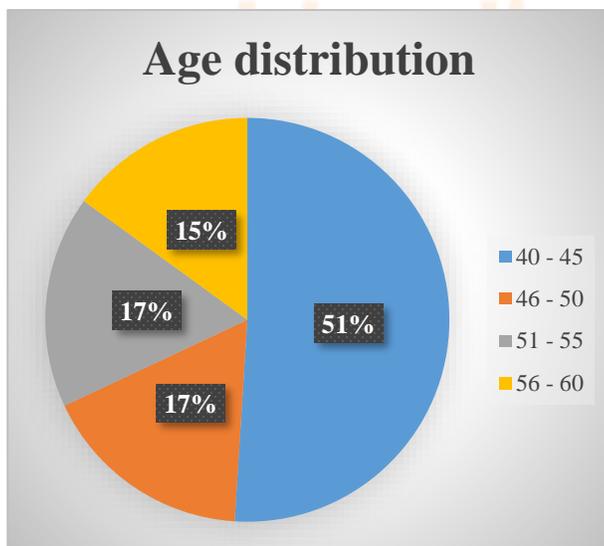

Fig-1
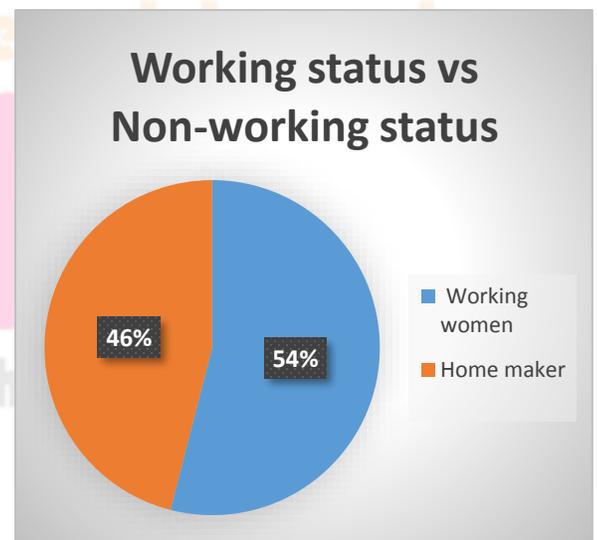
Fig-2

Table 1 : Mean and standard deviation of Pelvic Floor Distress Inventory

	Mean	S.D
BMI	25.93	3.71
Pelvic organs prolapse (POPDI)	18.76	7.42
Colo-rectal anal distress (CRAD)	15.19	8.29
Urinary-distress inventory (UDI)	23.18	11.77
Total score (PFDI)	37.08	23.05
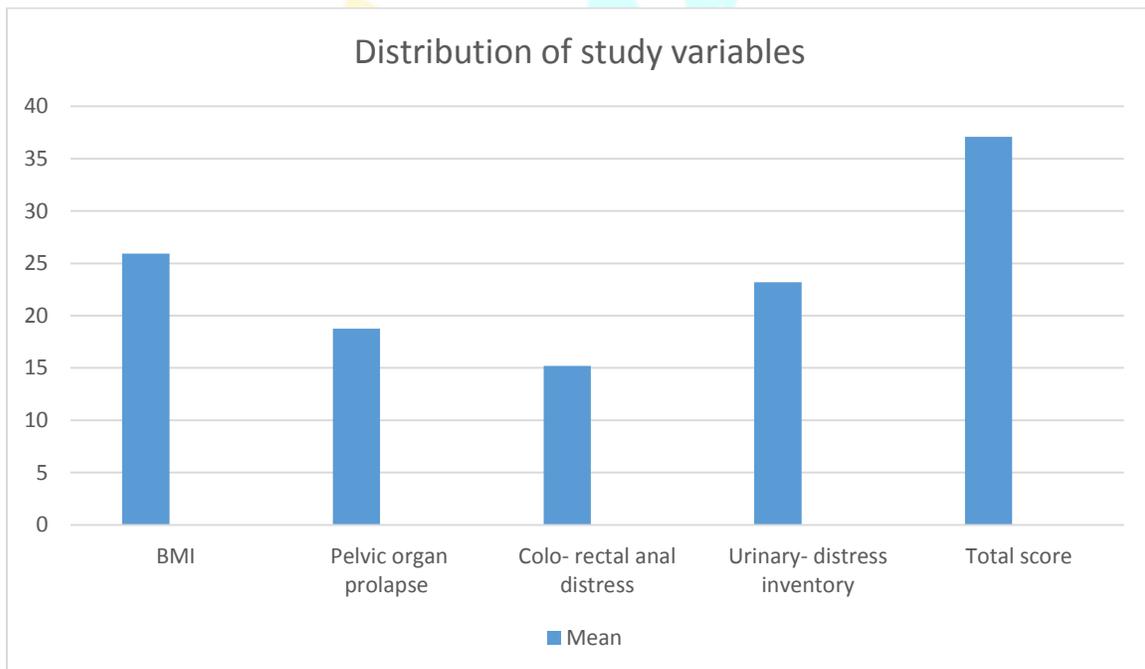
Fig-3

Table 2: Correlation of BMI with the Pelvic floor disability index

BMI	R	P
Pelvic organ prolapse	0.11	0.278
Colo – rectal anal distress	0.13	0.213
Urinary distress inventory	-0.06	0.566
Total score	-0.05	0.604

DISCUSSION

Pelvic floor disorders (PFD) impair the quality of life and comprise a clinical condition related to pelvic organ prolapse, urinary incontinence, and fecal incontinence. This study aimed to determine the prevalence of pelvic floor disorders among women above 40 years. The study also identified the relationship between the anthropometric measurements (BMI) and PFD. This study included 100 women above 40 years. Pelvic Floor Distress Inventory (PFDI-20) questionnaire was used to evaluate the symptoms related to pelvic dysfunction. The (PFDI-20) include various domains, such as Pelvic Organ prolapse Distress Inventory 6 (POPDI-6), Colorectal-Anal Distress Inventory 8 (CRAD-8), Urinary distress Inventory 6 (UDI-6). The data were collected and analysed using descriptive statistics. The observed results showed that most of the population (51%) observed in the age group of 40-45 and least number of women (15%) observed in the age group of 56-60. The study population includes most of the working women (54%) and 46% were home maker. It was also observed that among 100 women 72% were not involved in physical activity and only 28% of women doing regular physical activity. The results showed that there is no significant correlation between the BMI and PFD. This may be due to that the mean value of BMI (25.93) among the study population found as closer to normal weight. Among 100 women 97% of women have pelvic distress and urinary distress and 3 % of women were not having any symptoms. Among 100 women 93% of women said yes to colorectal-anal distress and only 7% of women said no which denotes that the PFD is more prevalent among the study population. The results showed that the mean value of urinary distress inventory (UDI-6) was higher, followed by Pelvic Organ prolapse Distress Inventory 6 (POPDI-6), Colorectal-Anal Distress Inventory. The observed results show that urinary distress is more prevalent among the study population than the pelvic organ distress and Colo rectal distress. The study results supported well by Van Geeelan JM and Nygaard I[13,14] stated that the prevalence of UI increases with age which is estimated that 20 to 40% of older women complaints urinary incontinence due to weakness of pelvic floor muscles. Similar results found in the study done by Brown J[15,16] declared that Urinary Incontinence (UI)is very common, and the prevalence increases with age. The study results concluded that PFD is more prevalent among the women above 40 years with increased symptoms of Urinary Distress. This study has few strengths are simple standardized questionnaire was used to evaluate PFD, this study creates awareness among the study population at earlier onset of elder age. The limitations of this study are the sample size was small, and this study included the population from one geographical area, the psychological component of the study population was not evaluated, this study did not focus on muscle weakness and discomfort. Further studies are needed with large sample including other variables.

CONCLUSION: The study concluded that urinary distress (UDI) is more prevalent followed by pelvic organ prolapse distress (POPDI) and colorectal anal distress (CRADI) among the women above 40 years. This study recommends the effective therapeutic program to reduce the symptoms of PFD among women above 40 years.

CONFLICT OF INTEREST

The authors declared that they have no conflicts of interest.

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