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Original Research Article

A community-based assessment of common mental disorders among reproductive age women in the Palam area of Delhi

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ABSTRACT

Background: Common mental disorders (CMDs), including depression, anxiety, and somatoform disorders, are frequently encountered in primary care, especially among women of reproductive age due to cultural, psychological, and biological factors. Despite this, community-level data on CMDs in Northern India remains limited. This study aimed to assess the prevalence of CMDs among women aged 15-49 in Delhi's Palam area and to examine associated socio-demographic factors.
Methods: A cross-sectional study was conducted between January 2021 and March 2022, involving 370 women selected through probability sampling in Palam area of Delhi. CMDs were screened using the self-reporting questionnaire-20 (SRQ-20) and pattern was assessed using modified mini screen (MMS).
Results: CMDs were found in 38.9% of participants. Depression was most common (40.6%), followed by generalized anxiety disorder (21.3%) and mania (17.4%). Significant associations were observed with age, religion, education, economic status, school dropout history, and marital status. Higher prevalence was noted among women aged 30-44 and over 45, Muslims, those without formal education, individuals in upper-middle income groups, school dropouts, and widowed or divorced women.
Conclusions: A substantial number of reproductive-age women were affected by CMDs. Targeted mental health initiatives are essential for early identification and support of high-risk groups.

Keywords: Common mental disorders, SRQ-20, Reproductive age women, Prevalence

INTRODUCTION

Health encompasses complete physical, mental, social, and spiritual well-being, not just the absence of illness. The phrase "no physical health without mental health" underlines the vital role of mental well-being.[1] Mental disorders are linked to various personal and societal challenges. In India, a significant treatment gap persists due to limited awareness, stigma, and resource constraints. The term CMDs, introduced by Goldberg and Huxley, refers to frequently seen conditions in primary care, including depression, anxiety, and somatisation.[2] These non-psychotic conditions are classified under 'neurotic, stress-related, and somatoform disorders' in ICD-10.[3]

According to the global burden of disease report, mental illnesses contribute to 13% of total DALYs for years lived with disability, with depression being the major contributor.[4] Studies show that over 30% of adults in general medical outpatient settings in India and other developing nations suffer from CMDs.[5] Women are particularly vulnerable due to bio-psycho-social stressors like marriage, domestic abuse, child-rearing, gender roles, and discrimination. Data indicates that 47% of women are at high risk of mental disorders compared to 36% of men.[6] Childhood trauma increases the risk of adult

depression in women by 3-4 times; and PTSD is at least twice as prevalent in women following trauma.[7,8]

Despite women's increasing participation in the workforce, societal attitudes have not evolved, leading to stress-related mental health issues. Though mental and reproductive health intersect at many stages, data from Northern India remains limited. Therefore, understanding of the CMDs in women through community-based studies is crucial, as many conditions are treatable if detected early.

Objectives

Objectives were to study the prevalence of CMD among reproductive age group (15-49 years) women residing in Palam area of Delhi and to study the various socio-demographic factors associated with CMDs among study participants.

METHODS

Study design

This was a community based cross-sectional study.

Study period

The study was conducted from January 2021 to June 2022. Data collection was done from January 2021 to March 2022, as due to the ongoing COVID-19 Pandemic, study was halted for few months due to lockdown and high number of COVID-19 cases.

Study area

The study was carried out in the Palam area in South-West district of Delhi located 20 kms from the New Delhi Railway Station. Primary health centre (PHC) Palam under Rural Health Training Centre (RHTC) of Najafgarh is one of the field practice areas for training of undergraduate and postgraduate students of Department of Community Medicine, Lady Hardinge Medical College. It is located 18 kms from the medical College. The other catchment area includes Palam Village, Pochanpur, Harijan Basti, Adarsh Gali and the Puran Nagar.

Study participants

Reproductive age group women (15-49 years) residing in Palam area of Delhi were selected for the study.

Sample size

Has been calculated by taking prevalence of CMD at 22.3% and an allowable error of 20%.[9]

$N=(Z1-\alpha/2)2\times p\times(1-p)/E^2$

Where, $Z1-\alpha/2=1.96$ (95% confidence interval) p=22.3 (population prevalence)

q=100-22.3=77.7 E= 20% of 22.3% (allowable error).

Sample size comes out to be 335.

Assuming non-response rate of 10%, sample size=370.

Inclusion criteria

All reproductive age group women (15-49 years) residing in Palam area of Delhi were included in the study.

Exclusion criteria

All reproductive age group women (15-49 years) residing in Palam area of Delhi with acute medical and psychiatric conditions who are unable to comprehend the interview schedule were excluded from the study.

Study instruments

A semi-structured, self-designed interview schedule was used to assess identification details, socio-demographic profile. The CMDs were assessed using SRQ-20.[1] Pattern of CMD was assessed using MMS questionnaire.[11] Assessment of the socio-economic status by the modified Kuppuswamy scale (Consumer price index 2021).[12]

Statistical analysis

Data was be entered and analyzed in latest free available version of statistical package of social sciences (SPSS) version 16. Mean and standard deviation was calculated for quantitative data and proportions were calculated for qualitative data. Chi-square test was applied for statistical significance for qualitative data. $P<0.05$ was considered as statistically significant.

Ethical clearance

Ethical committee approval on letter No. LHMC/IEC/2020/PG Thesis/18 dated on 29/12/2020.

RESULTS

The mean age of participants was 28.55 years with a standard deviation of 9.54 years. Over half (53.2%) were between 15 and 29 years of age, while only 11.4% were older than 45. The majority (87.8%) identified as Hindu, with the remaining participants being Muslim. Most individuals (78%) had received some level of formal education. Homemakers made up 69% of the sample, and 61.6% were currently married. The mean age at marriage was 19.83 years (±2.16), and the average duration of marriage was 14.7 years (±8.7). In terms of socioeconomic status, 37.3% were classified under the upper middle class based on the modified Kuppuswamy scale (CPI 2021). Additionally, 76.8% of participants

lived in nuclear families (Table 1). To find the prevalence of CMD among reproductive age group women, SRQ-20 was administered to all 370 study subjects and it came out to be 38.9% (i.e. 144 out of 370 study subjects were screened positive) (Table 2). Approximately half of the participants aged 30-44 years (50.4%) and those over 45 years (50%) were found to have CMD, while the prevalence was notably lower (28.9%) among those aged 15-19 years. This difference was statistically significant. CMD was more common among Muslim participants (55.6%) compared to Hindus (36.6%), with the variation being statistically significant as well. A higher proportion of CMD was seen among illiterate individuals (54.3%) in comparison to literate ones (34.6%), though this difference was not statistically significant. Participants from upper middle class reported the highest prevalence of CMD (47.4%) compared to those from upper and lower middle classes (34.5% and 22.6% respectively), which was statistically significant. Working women (44.3%) and those living in joint families (45.3%) showed a greater occurrence of CMD, but these findings lacked statistical significance. Among school dropouts (39.7% of sample), nearly half (51.7%) had CMD, a relationship that was statistically significant. CMD prevalence was highest among divorced women (75%), followed by married women (50%), while the lowest was seen in unmarried women (16.4%). This association between marital status and CMD found significant (Table 3 and 4).

Table 1: Socio-demographic characteristics of the study participants, (n=370).

Variables	N	Percentage (%)
Age (in years)		
15-29	197	53.2
30-44	131	35.4
≥45	42	11.4
Religion		
Hindu	325	87.8
Muslim	45	12.2
Socio economic status		
Upper class	81	21.9
Upper middle class	138	37.3
Lower middle class	123	33.2
Upper lower class	19	5.1
Lower class	9	2.4
Marital status		
Living with spouse/married	228	61.6
Living without spouse (Unmarried/ widowed/ separated)	142	38.4
Type of family		
Nuclear	284	76.8
Joint	86	23.2
Working status		
Not working	255	68.9
Working	115	31.1
Literacy status		
Illiterate	81	21.9
Literate	289	78.1

Table 2: Prevalence of CMDs as per SRQ-20, (n=370).

CMDs	N	Percentage (%)
Present	144	38.9
Not present	226	61.1
Total	370	100

Table 3: Association of various socio-demographic factors with CMDs among study subjects, (n=370).

Variables	CMD, N (%)		Total (n=370) (%)	P value
	Present, (n=144)	Absent, (n=226)		
Age (in years)				
15-29	57 (28.9)	140 (71.1)	197 (53.2)	
30-44	66 (50.4)	65 (49.6)	131 (35.4)	0.001
≥45	21 (50.0)	21 (50.0)	42 (11.4)	

Continued.

Variables	CMD, N (%)		Total (n=370) (%)	P value
	Present, (n=144)	Absent, (n=226)		
Religion				
Hindu	119 (36.6)	206 (63.4)	325 (87.8)	0.015
Muslim	25 (55.6)	20 (44.4)	45 (12.2)	
Family type				
Nuclear	105 (37.0)	179 (63.0)	284 (76.8)	0.163
Joint	39 (45.3)	47 (54.7)	86 (23.2)	
Marital Status				
Living with spouse	114 (50.0)	114 (50.0)	228 (61.6)	0.001
Living without spouse (Divorced/ widowed/ un-married)	30 (21.1)	112 (78.9)	142 (38.4)	

Table 4: Association of various socio-economic factors with CMDs among study subjects, (n=370).

Variables	CMDs, N (%)		Total, (n=370) (%)	P value
	Present, (n=144)	Absent, (n=226)		
Education				
Illiterate	44 (54.3)	37 (45.7)	81 (21.9)	0.001
Literate	100 (34.6)	189 (65.4)	289 (78.1)	
School dropout				
Yes	76 (51.7)	71 (48.3)	147 (39.7)	0.001
No	68 (30.5)	155 (69.5)	223 (60.3)	
Working status				
Not working	93 (36.5)	162 (63.5)	255 (68.9)	0.150
Working	51 (44.4)	64 (55.6)	115 (31.1)	
Socioeconomic status				
Upper class	49 (34.5)	93 (65.5)	142 (38.4)	0.002
Upper middle class	83 (47.4)	92 (52.6)	175 (47.3)	
Lower middle class and less	12 (22.6)	41 (77.4)	53 (14.3)	

DISCUSSION

Mental disorders are characterized by patterns of psychological or behavioral symptoms that deviate from normal development or cultural expectations, often leading to significant distress or impairment. In contrast, mental health refers to a person's cognitive and emotional well-being or the absence of mental illness.

According to the global burden of disease study (1990-2017), approximately 197.3 million Indians-about one in seven individuals-were affected by mental disorders. The overall burden of these disorders in India has significantly increased over the years, with a higher prevalence noted among women and in southern states.[13]

In the current study involving 370 women of reproductive age, the prevalence of CMDs was 38.9%, based on the SRQ-20 screening tool with a cutoff score of ≥7. The average SRQ score was 5.6±5.4, ranging from 0 to 20.

Our findings are in line with those of Panigrahi et al, who reported a CMD prevalence of 32.9% in Bhubaneswar using the same SRQ-20 cutoff.[14] International studies have reported similar figures: Lucchese et al in Brazil found a prevalence of 31.5%, while Abraham et al in Ethiopia reported 31%.[15,16] Such similarities could be influenced by comparable sociodemographic profiles and may also reflect the widespread psychological impact of the COVID-19 pandemic.

Conversely, lower prevalence rates were observed in studies by Agarwal et al (19.8%), Fahey et al (23.7%), Langer et al (22.3%) and Tawar et al (27.27%), possibly due to differing methodologies, population characteristics, and regional variations.[17-20] On the other hand, some studies reported prevalence similar to ours: Carmo et al (37.6%) in Brazil; Woldetsadik et al (35.8%) in Ethiopia among pregnant women; Parreira et al (35.7%) in Brazil; Lucchese et al (31.5%) in Brazil.[22-24]

In our study, 144 women screened positive for CMD using SRQ-20. Further assessment with the modified MINI tool identified 155 psychiatric diagnoses among them. Depression was most common (40.6%), followed by generalized anxiety disorder (21.3%), mania (17.4%), PTSD (8.4%), social anxiety disorder (6.5%), psychotic disorders (3.2%), and OCD (2.6%).

These figures are higher than those reported in the national mental health survey (NMHS) 2015-16, where lifetime prevalence of any mental illness was 13.7% and CMDs accounted for about 10%.[25] Differences could stem from the tools used-NMHS employed the MINI

along with other diagnostic measures-and the timing, as the NMHS preceded the COVID-19 pandemic.

A systematic review by Steel et al covering 59 countries found global CMD prevalence at 17.6%, with women more affected (19.8%) than men.[26] In comparison, our study reflects higher rates, potentially due to regional stressors and cultural factors. Nair et al also reported a higher CMD rate of 44.8% among women visiting a healthcare facility, suggesting elevated prevalence in clinical settings.[27]

A study by Prost et al showed maternal psychological distress at 11.5%, using the Kessler-10 scale, indicating lower prevalence in a more specific maternal population.[28]

We found that CMD was significantly associated with sociodemographic variables such as age, religion, education, economic status, and school dropout history. However, occupation and family structure did not show a statistically significant link.

This aligns with Panigrahi et al who also found age as a key factor, but not education, family type, or occupation-possibly because their sample focused solely on working married women.[14] Langer et al in Jammu observed a similar pattern, with age being a significant factor while socioeconomic status and education were not-likely due to differences in participant class backgrounds between the studies.

Agarwal et al found age, education, and income level to be significantly associated with CMD, consistent with our findings.[17] However, their results for family type and occupation differed, possibly because most of our respondents were homemakers from nuclear families.

Kallakuri et al reported significant associations with age, education, and occupation.[29] In contrast to our study, they found occupation significant-likely due to a higher proportion of employed women in their sample.

Marital status showed a strong link with CMD in our study: 75% of widowed women screened positive, compared to 50% of married and only 16.4% of unmarried women. This is consistent with Patel et al who reported that widowed or divorced women faced greater mental health challenges.[30] Potential reasons include bereavement stress, financial pressure, and societal stigma. Similar trends were noted in studies by Fahey et al, Agarwal et al, Kallakuri et al and Nair et al.[17,18,27,29]

CONCLUSION

This study reveals a notable prevalence (38.9%) of CMDs among women of reproductive age living in the Palam locality of Delhi, with depression emerging as the most common condition. The analysis showed significant links between CMDs and various socio-demographic factors, including older age, limited educational attainment, being of the Muslim faith, belonging to the upper-middle socioeconomic class, school dropout status, and being widowed or divorced. These results highlight the critical need to incorporate mental health support into existing community healthcare frameworks. Strengthening mental health awareness through local campaigns, implementing routine screenings in primary care settings, and expanding access to affordable treatment options are essential steps toward addressing the unmet mental health needs. Particular focus should be directed toward vulnerable groups such as widows, those who have left school early, and socially marginalized women.

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