Common Mental Disorders and Their Correlates: A Community-based Survey Among Women in Southern Karnataka, India

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ABSTRACT

Background: About 10% of Indians have common mental disorders (CMDs) which include depression and anxiety. These disorders are common in women, which not only impacts on their quality of life but also their family members. The objective of the study was to estimate the prevalence of CMDs, and factors associated with them among women residing in coastal Karnataka.

Methods: A cross-sectional study was carried out among 980 women aged between 18 and 60 years from 2019 to 2021. Women were administered a baseline questionnaire along with Patient Health Questionnaire-9 (PHQ-9), Generalised Anxiety Disorder questionnaire-7 (GAD-7) and Cohen's Perceived Stress Scale-4 (PSS-4). Data were collected using Epi-info and were analysed using SPSS version 15.0. Association between CMDs and socio-demographic, reproductive health and behavioural factors were expressed as crude and adjusted odds ratio (OR) with 95% confidence intervals (CI).

Results: The prevalence of CMDs among women was 5.7%, with 4.6% having depression and 3.37% with anxiety disorders. Multivariate logistic regression analysis showed that residing in urban areas (OR = 2.15; 95% CI:1.10–4.17), having a chronic illness (OR = 2.38; 95% CI:1.14–4.97), history of recent bereavement in the family (OR = 2.20; 95% CI:1.02–4.75), early marriage (OR = 2.63; 95% CI:1.09–6.33), history of abortion (OR = 2.89; 95% CI:1.42–5.92), and exposure to domestic violence (OR = 3.08; 95% CI:1.14–8.33) were significantly correlated with CMDs in this sample.

Conclusions: The study revealed that CMDs were prevalent among the surveyed women, which calls for routine screening of women for CMDs in primary care settings for early identification and appropriate interventions.

Keywords: Anxiety, depression, CMDs, women, India

Key Messages: Mental health is a vital component of health of an individual. The burden of psychiatric disorders is distributed unevenly across all sections of society with women being more vulnerable. The prevalence of CMDs was 5.7% among the surveyed women in the coastal region of southern Karnataka. It was comparable with other community-based surveys conducted across the country.

The term common mental disorders (CMDs) was coined by Goldberg and Huxley in 1992 to explain mental health conditions that are generally seen in community settings which include depression and anxiety.[1]

Globally, about 792 million (10.7%) people are living with mental health disorders with females (11.9%) outnumbering males (9.3%). Of these conditions, depression (3.4%) and anxiety (3.8%) are the common disorders with female preponderance being exhibited.[2] Recent data from the National Mental Health Survey (NMHS) 2015–2016 estimated that about 10% of the 150 million Indians were suffering from common mental

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disorders (CMDs). The burden of CMDs was two to three times greater in urban areas in comparison to rural settings. Earlier mental health services were available only in the urban settings thereby depriving the rural population of it. The national mental health policy which came into existence in 2002 ensured that the mental health facilities were incorporated into the primary health care settings.[3]

The burden of psychiatric disorders is unevenly distributed across all sections of the society in India with CMDs affecting women almost twice as compared to men.[4] This could be due to various biological, psychological and social factors coupled with hormonal changes during puberty, pregnancy, postpartum and menopause which increases women's vulnerability to poor mental health. Also, women are constantly subjected to gender inequity, social omission and gender disadvantage like early marriage, early pregnancy, and domestic violence, especially in rural India.[5] Women who suffer from CMDs usually present with symptoms such as tiredness, absent-mindedness, sleeplessness, bad temper, difficulty in focusing, headaches and psychosomatic complaints.[6]

As women are the backbone of their families, a minor mental health issue with them can disturb the family dynamics to a large extent. Families can also experience the financial burden from direct and indirect economic costs that could arise from loss of employment and decreased productivity. Hence, it is crucial to identify the symptoms of CMDs especially among women and intervene at the earliest.

Most of the studies on CMDs were limited to women in the reproductive age group, or conducted in hospital settings, which makes it difficult to make realistic estimates of the burden of CMDs in the community. As there is a scarcity of data on mental health status of women aged between 18 and 60 years, the present study was undertaken to estimate the prevalence of CMDs and their associated risk factors among women residing in coastal region of southern Karnataka.

Material and Methods

This cross-sectional study was carried out to determine the prevalence of CMDs among women aged between 18 and 60 years residing in the rural and urban localities of the field practice area of a medical college in southern Karnataka, India from 2019 to 2021. In this study, CMDs included common mental health conditions prevailing in community settings which include depression and anxiety.[1] Women who were severely ill (those who were suffering from a debilitating illness), physically disabled, or bed-ridden or those who were pregnant/in post-partum period at the time of survey were excluded.

The study area covers a population of approximately 40,000 individuals residing across 15 villages, with 13,763 women aged between 18 and 60 years. Primary health care services to this population are provided through a network of four rural health centres and one urban health centre. These outreach centres provide comprehensive health care services, including management of non-communicable diseases, maternal and child health services, and geriatric care through regular clinics. Furthermore, mental health care, dental, and occupational health care services are provided regularly.

The sample size was estimated to be 990, considering a prevalence of CMDs at 10%, with an allowable error of 20%, a confidence interval of 95%, and accounting for a non-response rate of 10%.[7] Households were chosen by simple random sampling method with probability proportional to size (PPS) from the field practice area as the participants were from a homogenous community (**Figure** 1). The household data used for sampling were obtained from the health and demographic surveillance system maintained at the outreach centres.

The study protocol received approval from the institutional ethics committee (IEC: 631/2019) prior to the initiation of the study. Written informed consent was obtained from all participating women before their recruitment into the study. They were assured that their personal information would be kept anonymous and confidential.
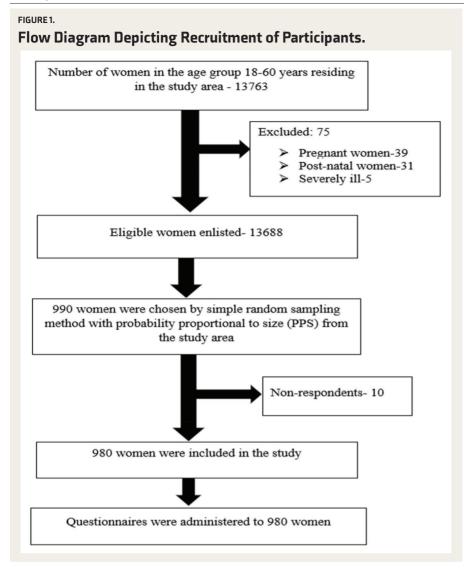
During the household visits, all recruited women were administered a predesigned questionnaire to capture data on their socio-demographic profile, behavioural characteristics, chronic illness (broadly defined as conditions that last one year or more and require ongoing medical attention or limit activities of daily living or both), reproductive health characteristics, family-related factors, and physical activity.[8] To assess the stress level of the participants which could be one of the risk factors for CMDs, Cohen's Perceived Stress Scale-4 (PSS-4) was translated to the local language (Kannada) and administered by the trained doctor.[9] This scale has four questions; and each item is rated on a five-point Likert scale, resulting in a total score ranging from zero to sixteen. Using the tertile method in SPSS, the total score was categorized into mild, moderate, and severe, with the higher scores indicating higher perceived stress in individuals. Depression was assessed using Patient Health Questionnaire-9 (PHQ-9), which consists of nine questions. Every question was scored from zero to three, and the total scores varied between zero and twenty-seven.[10] Similarly, the Generalised Anxiety Disorder-7 scale (GAD-7) was administered to screen for anxiety. It consists of seven questions and total scores range from zero to twenty-one.[11] A score of ≥10 on either PHQ-9 or GAD-7 or both was considered positive for CMDs. Both the scales were translated into the local language and administered by a trained doctor for screening depression and anxiety respectively in the community settings. Women who screened positive for CMDs were referred to the Psychiatry outpatient department at the medical college or the outreach health centres on specified days depending on the psychiatrist's availability for confirmation of diagnosis.

Data were collected using Epi-info application version 7.2.2.6, and analysis was done using Statistical Package for the Social Sciences (SPSS) version 15.0. Univariate logistic regression analysis was done and variables with a $p < 0.01$ were selected for multivariate analysis to identify the independent predictors of CMDs. The results were presented as crude and adjusted odds ratio (OR) with 95% confidence intervals. A $p < 0.05$ was considered statistically significant.

Results

The study was conducted on 980 women aged between 18 and 60 years, residing in the study area for more than one

FIGURE 1.

Flow Diagram Depicting Recruitment of Participants.

year. All the 980 proforma had complete data and were considered for the data analysis. The overall prevalence of CMDs among the surveyed women was found to be 5.7%, with the prevalence of depression and anxiety being 4.60% and 3.37%, respectively.

The mean age of women was 45.93 (SD ± 12.42) years, and only 279 participants (28.5%) had more than 10 years of schooling. Out of the total participants, 820 (83.77%) were Hindus, and 678 (69.18%) were currently married. There were 404 (41.22%) women who belonged to joint families, followed by 370 (37.76%) from nuclear families, and 206 (21%) from three-generation families. Nearly three-fourths (72.96%) of the respondents resided in rural areas.

About 876 women (89.38%) belonged to the middle socio-economic class based on the modified BG Prasad scale.[12] Only 218 (22.24%) were employed, with 66 (6.73%) of them engaged in white-collar or skilled jobs (**Table 1**).

Out of the total 916 ever-married women, 73 (7.97%) had married before completing 18 years of age. About 48 (4.89%) study participants reported experiencing domestic violence in the past four weeks from the time of survey. Among the 678 currently married participants, 669 (98.67%) reported a good psychosocial relationship with their spouse, while 9 (1.33%) reported having frequent fights with their spouse.

In the univariate analysis, the odds of having CMDs were found to be 2.43 times higher ($p < 0.005$) among women aged 46–60 years compared to those between 18 and 45 years of age. Participants who attended 1–4 years of schooling and 5–10

years of schooling had 3.68 ($p < 0.08$) and 2.22 ($p < 0.048$) times higher odds of having CMDs, respectively, than those who had more than 10 years of schooling. Women from three-generation families and urban areas were twice as likely to have CMDs. Women with unemployed spouses were six times more likely to have CMDs. However, there was no significant association found between marital status, religion, socio-economic status and participant's work status (**Table 2**).

Participants who had a chronic illness were found to have 2.86 times higher odds of having CMDs, and women who reported death in their family in the past year had 2.31 times higher odds of having CMDs. Among the reproductive characteristics that were assessed, CMDs showed a significant association with irregular menstrual cycles, early marriage, teenage pregnancy (<18 years of age), having three or more children, a history of abortion, attaining menopause, and experiencing perimenopausal symptoms.

On univariate analysis, CMDs were found to have a statistically significant association with exposure to domestic violence ($p < 0.001$), psychosocial relationship with family ($p < 0.001$), women's autonomy in decision-making ($p < 0.05$), and stress level ($p < 0.05$) (**Table 3**)

In the multivariate logistic regression analysis, living in urban localities, having chronic morbidities, history of a recent bereavement in the family, getting married before 18 years of age, a history of abortions, and exposure to domestic violence were identified as independent predictors of CMDs among the surveyed women (**Table 4**).

Discussion

In this community-based cross-sectional survey conducted among 980 women aged 18–60 from Udupi taluk, we observed an overall prevalence of CMDs at 5.7%. This finding aligns with the NMHS findings (conducted in 2015–2016), which reported a similar CMDs prevalence of 6.96% among women from 12 states across six regions in India.[7] However, there were contrasting findings in other Indian studies. For example, Sathyanarayana et al. in Bengaluru reported a much higher prevalence of 33.5%, Agarwal et al. in Meerut

TABLE 1.

Socio-demographic Characteristics of the Study Participants (*n* = 980).

Characteristics		Frequency (%)
Age in years	18–45	427 (43.57)
	46–60	553 (56.43)
Religion	Hindu	820 (83.67)
	Muslim	123 (12.55)
	Christian	37 (3.78)
Marital status	Unmarried	64 (6.53)
	Currently married	678 (69.18)
	Separated/divorced/widowed	238 (24.29)
Literacy status	Illiterate	95 (9.69)
	1–4 years of schooling	102 (10.41)
	5–10 years of schooling	504 (51.43)
	Above 10 years of schooling	279 (28.47)
Occupation	Professional/white collar/skilled	66 (6.73)
	Semi-skilled/unskilled	152 (15.51)
	Homemaker	687 (70.11)
	Student/unemployed/retired	75 (7.65)
Type of family	Nuclear	370 (37.76)
	Three generation	206 (21.02)
	Joint	404 (41.22)
Socioeconomic status	Upper class (I)	91 (9.29)
	Upper middle class (II)	359 (36.63)
	Middle class (III)	376 (38.37)
	Upper lower class (IV)	141 (14.38)
	Lower class (V)	13 (1.33)
Area	Urban	265 (27.04)
	Rural	715 (72.96)

found a prevalence of 19.8%, and Fahey et al. in rural Gujarat reported a prevalence of 23.8% for CMDs among women.[13,14,15] These discrepancies in prevalence rates could be attributed to differences in the screening tools used. The current study used PHQ-9 and GAD-7, while the other three studies used Self Reporting Questionnaire-20. The choice of screening tool may impact the reported prevalence rates due to variations in the assessment and identification of CMDs among the study participants.

The present study found that the prevalence of depression and anxiety among the participants was 4.60% and 3.37%, respectively. These findings are in concordance with the WHO Mental Health Report 2019, which reported a prevalence of 6% for depression and 5.9% for anxiety among women aged above 20 years.[16] However, lower prevalence rates were reported in other studies. For example, Kallakuri et al. from Andra Pradesh reported a prevalence of 3% for depression and 1.8% for anxiety, and the NMHS 2015–2016 reported a prevalence of 2.97% for depression and 0.76% for anxiety.[7, 17] These variations in prevalence rates across studies could be due to several factors, including differences in the study populations, sample sizes,

TABLE 2.

Association of Socio-demographic Characteristics with Common Mental Disorders Among Women.

		Common Mental Disorders			
		Present (*n* = 56)	Absent (*n* = 924)		
Characteristics		Frequency (%)	Frequency (%)	Unadjusted OR (95% CI)	*P* Value
Age in years (*n* = 980)	18–45	14 (25.00)	413 (44.70)	1	
	46–60	42 (75.00)	511 (55.30)	**2.43 (1.31–4.50)**	**0.005***
Literacy status (*n* = 980)	Illiterate	7 (12.50)	88 (9.52)	2.69 (0.95–7.64)	0.062
	1–4 years of schooling	10 (17.86)	92 (9.96)	**3.68 (1.41–9.61)**	**0.008***
	5–10 years of schooling	31 (55.36)	473 (51.19)	**2.22 (1.01–4.89)**	**0.048***
	Above 10 years of schooling	8 (14.28)	271 (29.33)	1	
Marital status (*n* = 980)	Unmarried	3 (5.36)	61 (6.60)	1	
	Married	27 (48.21)	651 (70.45)	0.84 (0.25–2.86)	0.784
	Separated/Divorced/Widowed	26 (46.43)	212 (22.95)	2.49 (0.73–8.52)	0.145
Religion (*n* = 980)	Hindu	47 (83.93)	773 (83.66)	1	
	Muslim	7 (12.50)	116 (12.55)	0.99 (0.44–2.25)	0.986
	Christian	2 (3.57)	35 (3.79)	0.94 (0.22–4.03)	0.933
Type of family (*n* = 980)	Nuclear	25 (44.64)	345 (37.34)	1.88 (0.98–3.62)	0.060
	Joint	15 (26.79)	389 (42.10)	1	
	Three generation	16 (28.57)	190 (20.56)	**2.18 (1.06–4.51)**	**0.035***

(Table 2 continued)

(Table 2 continued)

Characteristics		Common Mental Disorders		Unadjusted OR (95% CI)	P Value
		Present (n = 56)	Absent (n = 924)		
		Frequency (%)	Frequency (%)		
Socioeconomic status (n = 980)	Upper class	4 (7.15)	87 (9.42)	1	
	Middle class	39 (69.64)	696 (75.32)	1.22 (0.42–3.49)	0.713
	Lower class	13 (23.21)	141 (15.26)	2.01 (0.63–6.35)	0.237
Type of area (n = 980)	Urban	23 (41.07)	242 (26.19)	**1.96 (1.31–3.41)**	**0.017***
	Rural	33 (58.93)	682 (73.81)	1	
Working status of participants (n = 980)	Working	13 (23.21)	205 (22.19)	1.15 (0.59–2.20)	0.681
	Currently not working	7 (12.50)	68 (7.36)	1.86 (0.79–4.34)	0.151
	Homemaker	36 (64.29)	651 (70.45)	1	
Spouse's working status (n = 678)	Employed	15 (55.55)	521 (80.03)	1	
	Unemployed	8 (29.63)	45 (6.91)	**6.18 (2.48–15.35)**	**<0.001***
	Retired	4 (14.82)	85 (13.06)	1.64 (0.53–5.04)	0.393

*Bold fonts indicate that the values are statistically significant.

TABLE 3.

Association of General Health, Reproductive Health and Behavioural Factors with Common Mental Disorders.

Characteristics		Common mental disorders		Unadjusted OR (95% CI)	P Value
		Present	Absent		
		Frequency (%)	Frequency (%)		
Chronic illness (n = 980)	Yes	37 (66.07)	374 (40.48)	2.86 (1.62–5.06)	<0.001*
	No	19 (33.93)	550 (59.52)	1	
Recent bereavement (n = 980)	Yes	13 (23.21)	107 (11.58)	2.31 (1.20–4.43)	0.012*
	No	43 (76.79)	817 (88.42)	1	
Menstruation (n = 470)	Regular	10 (55.56)	396 (87.61)	1	
	Irregular	8 (44.44)	56 (12.39)	5.66 (2.14–14.94)	<0.001*
Age at marriage in years (n = 916)	<18	11 (20.75)	62 (7.18)	3.49 (1.70–7.17)	0.001*
	18–30	38 (71.70)	748 (86.68)	1	
	>30	4 (7.55)	53 (6.14)	1.49 (0.51–4.32)	0.467
Age at first pregnancy in years (n = 868)	<18	7 (14.58)	23 (2.80)	5.74 (2.32–14.20)	<0.001*
	18–30	38 (79.17)	716 (87.32)	1	
	Above 30	3 (6.25)	81 (9.88)	0.69 (0.21–2.31)	0.556
Number of children (n = 868)	0	1 (2.08)	18 (2.20)	1.09 (0.14–8.44)	0.930
	1–3	35 (72.92)	690 (84.15)	1	
	Above 3	12 (25.00)	112 (13.65)	2.11 (1.06–4.19)	0.032*
History of abortion (n = 868)	Yes	17 (35.42)	108 (13.17)	3.62 (1.94–6.76)	<0.001*
	No	31 (64.58)	712 (86.83)	1	
Attained menopause (n = 980)	Yes	38 (67.86)	472 (51.08)	2.02 (1.14–3.59)	0.017*
	No	18 (32.14)	452 (48.92)	1	
Peri-menopausal symptoms (n = 250)	Yes	10 (90.91)	108 (45.19)	12.13 (1.53–96.26)	0.018*
	No	1 (9.09)	131 (54.81)	1	
Substance use by participants (n = 980)	Yes	8 (14.29)	72 (7.79)	1.97 (0.89–4.33)	0.090
	No	48 (85.71)	852 (92.21)	1	
Exposed to domestic violence (n = 48)	Yes	11 (19.64)	37 (4.00)	5.86 (2.81–12.24)	<0.001*
	No	45 (80.36)	887 (96.00)	1	
Psychosocial relationship with family members (n = 980)	Good	52 (92.86)	919 (99.46)	1	
	Bad	4 (7.14)	5 (0.54)	14.14 (3.69–54.22)	<0.001*
Autonomy in decision making (n = 980)	Yes	49 (87.50)	887 (96.00)	1	
	No	7 (12.50)	37 (4.00)	3.43 (1.45–8.07)	0.005*

(Table 3 continued)

(Table 3 continued)

Characteristics		Common mental disorders		Unadjusted OR (95% CI)	P Value
		Present	Absent		
		Frequency (%)	Frequency (%)		
Stress level (*n* = 980)	Mild	2 (3.57)	407 (44.05)	1	
	Moderate	23 (41.07)	424 (45.89)	11.04 (2.59–47.12)	0.001*
	Severe	31 (55.36)	93 (10.06)	67.83 (15.95–288.47)	<0.001*

*Bold fonts indicate that the values are statistically significant.

TABLE 4.

Multivariate Logistic Regression Analysis for Association of Various Factors with Common Mental Disorders (*n* = 868).

Variable		Adjusted OR (95% CI)	P Value
Age in years	18–45	1	
	46–60	2.19 (0.65–7.37)	0.207
Literacy status	Illiterate	0.71 (0.16–3.26)	0.663
	1–4 years of schooling	1.70 (0.49–5.87)	0.401
	5–10 years of schooling	1.24 (0.44–3.45)	0.684
	Above 10 years of schooling	1	
Type of family	Nuclear	1.92 (0.87–4.22)	0.105
	Joint	1	
	Three generation	1.78 (0.76–4.13)	0.183
Area	Urban	2.15 (1.10–4.17)	0.024*
	Rural	1	
Chronic illness among the participants	Yes	2.38 (1.14–4.97)	0.020*
Death in the family in past one year	Yes	2.20 (1.02–4.75)	0.044*
Age at marriage in years	<18	2.63 (1.09–6.33)	0.031*
	18–30	1	
	>30	0.96 (0.26–3.55)	0.946
Number of children among conceived	0	0.53 (0.58–4.78)	0.567
	1–3	1	
	>3	1.52 (0.66–3.47)	0.325
History of abortion	Yes	2.89 (1.42–5.92)	0.004*
Attained menopause	Yes	0.60 (0.19–1.90)	0.387
Substance use by the participants	Yes	1.62 (0.59–4.38)	0.352
Experienced domestic violence	Yes	3.08 (1.41–8.33)	0.026*
Psychological relationship with family	Good	1	
	Not good	3.43 (0.48–24.51)	0.219
Autonomy in decision-making	Yes	1	
	No	1.12 (0.33–3.81)	0.851

*Bold fonts indicate that the values are statistically significant.

cultural factors, and specific assessment tools used in the studies.

In the current study, more than half of the participants (56%) belonged to the age group of 46–60 years. This contrasts with a study by Deswal et al. in Pune, in which almost half (48%) of the participants belonged to age group 18–34 years.[18] The disparity in the study findings could be attributed to differences in the age criteria used to recruit women for the studies. The majority of the participants in the current study were Hindus (84%), similar to the study findings by Sathyanarayana et al.[13] However, in the present study, a higher proportion of women had more than five years of schooling (80%) compared to the study report from Pune (66%).

This difference could be because Udupi, where the current study was conducted, is one of the districts in Karnataka with a high literacy rate (male:91.40%; female:81.58%). Regarding employment, only 22% of women were employed, which is comparable to prior Indian studies conducted in Goa (21%) and Pune (32%).[5,18] In the present study, almost an equal proportion of participants belonged to joint families (41%) and nuclear families (38%), while in the study by Sathyanarayana et al. in Bengaluru the majority belonged to nuclear families (70%).[13] This difference could be due to variations in the study settings. Regarding socio-economic status, predominantly the surveyed women in the current study belonged to middle class (89%) according to the modified BG Prasad scale. This is in agreement with the study results of Agarwal et al. in Meerut, where 81% of participants belonged to middle class.[14]

The prevalence of CMDs in the present study was higher in those with lower literacy levels; however, literacy level was not an independent predictor of CMDs. This finding is consistent with the study done in rural Puducherry by Srinivasan et al. where the risk of CMDs was six times higher among women with low literacy.[19] The explanation for this could be that literate women are economically independent and have greater decision-making power in their families, which may have a protective effect against CMDs. In the present study, the likelihood of CMDs was two times higher among residents of urban areas as compared to those in rural areas. This finding is in congruence with the NMHS report (2015–2016) where the prevalence of CMDs was higher in Urban-metro areas (14.7%) compared to rural areas (9.6%).[7] The higher odds in urban settings could be due to busy schedules, increased stress levels, and the existence of more number of nuclear families

where women may get less support in executing family responsibilities.

In our study, we found that the risk of having CMDs was 2.38 times higher among women with chronic illnesses compared to healthy participants. A similar association was found in a study done by Nair et al. in Vellore, although it did not reach statistical significance.[20] Furthermore, the odds of having CMDs doubled among women who experienced a recent bereavement within the family compared to those without any such history; this finding is in concordance with the study by Keyes et al. in USA.[21]

This study found that women who were married before 18 years of age were at almost three times higher risk of developing CMDs compared to rest of the population. This finding is supported by the results of the study by Patel et al. where the prevalence of CMDs decreased as the age of marriage increased.[5] The risk of CMDs increased by three-fold among women who had undergone abortions in the past as compared to those who had uneventful pregnancies. This was in line with the study conducted by Mota et al. in the USA, which reported a higher burden of any mood disorders (34%) and anxiety disorders (16%) among women who underwent an abortion.[22] A significant association was observed between CMDs and exposure to domestic violence among the surveyed women (OR = 3.08; 95% CI: 1.14–8.33) which substantiates the reports of the study conducted by Srinivasan et al. (OR = 3.20; 95% CI:1.20–8.40), though it did not remain significant on multivariate analysis.[19]

In the present study, the odds of having CMDs were three times higher among women who had a poor relationship with their family, although this association was not significant. Similar findings were seen in the study conducted by Patel et al. where the prevalence of CMDs was higher among women who had little or no support from their family (OR=2.70; 95%CI: 1.80-4.00).[5] The present study showed a significant association between lack of women's autonomy in decision-making and CMDs, although it was not significant in multivariate analysis. A similar association was observed in the prior studies conducted by Patel

et al. (OR = 2.20; 95% CI: 1.40–3.40) and Panigrahi et al.[6,23]

Our study identified some key socio-economic, general health, reproductive health and behavioural factors for CMDs among women. These are extremely important in planning strategies for CMDs prevention at primary care level.

Strengths and Limitations

This study is valuable as it provides a community-based estimate of CMDs among women aged 18–60 years, which helps in understanding the mental health challenges faced by women in this age group. The use of validated PHQ-9 and GAD-7 administered by a trained doctor for screening depression and anxiety in the community settings is strength of the study. Considering the homogenous nature of the socio-demographic, reproductive and behavioural characteristics of women across the district, the study findings could be generalised to this region. Most research on CMDs among women has focused on a limited number of behavioural factors and reproductive health conditions while the present study has been an effort to study the association between risk factors from multiple domains and CMDs comprehensively among the surveyed women.

The study is not without limitations. Despite efforts to maintain privacy and confidentiality during interviews, sensitive questions like substance use and domestic violence may still lead to under-reporting due to stigma and fear of consequences. Further due to the cross-sectional nature of the study, the temporal association between various reproductive and behavioural factors and CMDs could not be ascertained.

Conclusions

In the present study, the prevalence of CMDs among the surveyed women was found to be 5.7% with that of depression and anxiety being 4.60% and 3.37%, respectively. Several factors were identified as significant predictors of CMDs, including residing in urban areas, having a chronic illness, history of recent bereavement in the family, early marriage, history of abortion, and exposure to domestic violence.

This calls for regular screening of mental health issues at the primary healthcare level to ensure timely identification and interventions for women with CMDs. Addressing gender disadvantage is essential in promoting women's mental health. Empowering women through self-help groups and other community-based organizations can provide them with a sense of security and support, which can be beneficial in managing mental health issues. Furthermore, a public-private partnership approach may be explored for implementing suitable preventive and curative mental health strategies for women in this region.

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