

## Original Research Article

DOI: <https://dx.doi.org/10.18203/2394-6040.ijcmph20211998>

# The prevalence of psychiatric symptoms in patients seeking treatment other than psychiatric conditions: a cross-sectional study

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**Received:** 05 April 2021

**Accepted:** 04 May 2021

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## ABSTRACT

**Background:** There is a bidirectional relationship between psychiatric symptoms and medical disorders. Covert psychiatric symptoms may worsen the course of medical disorders. People abstain from getting treatment for psychiatric symptoms because of multiple reasons.

**Methods:** The study aimed to estimate the presence of psychiatric symptoms among General Medicine patients. A cross-sectional epidemiological study was undertaken among the patients at the General Medicine OPDs of National Homoeopathy Research Institute In Mental Health, Kottayam, Kerala. The Self Reporting Questionnaire (SRQ)-20 screening tool was used to extract the data.

**Results:** A total of 3213 patients participated in the survey. Out of the total subjects who responded to the questionnaire, 516 (16.1%) were having symptoms of depression, 550 (17.1%) were having anxiety, 279 (8.7%) of the respondents were having both Anxiety and depression and 1540 (47.9%) were having somatic symptoms.

**Conclusions:** The prevalence of the psychiatric symptoms is often overlooked due to the underlying chronic conditions and patients may not give priority for such treatment. Estimating the exact prevalence will help early identification of disease conditions to prevent the disease from deterioration, provide better treatment opportunity, avoid the associated risks, and make the patient, as well as family members aware about the disease. A holistic approach, is needed especially in chronic conditions and Homoeopathy and other AYUSH systems can play a major role.

**Keywords:** Psychiatric symptoms, SRQ-20, Prevalence, Cross sectional survey

## INTRODUCTION

Mental health is an important component of the total positive health, and it is interwoven closely with the physical and physiological dynamics of the human body. According to WHO, mental health is a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community. "The WHO stresses that mental

health" is not just the absence of mental disorder.<sup>1</sup> Good mental health is related to mental and psychological well-being.

It has been reported that more than 70% of people with mental illness receive no treatment from health care staff.<sup>2</sup> Attitudes towards mental health are still not on equal terms with those towards physical health. Stigma is recognized as a significant barrier for the early diagnosis and treatment of various mental health conditions.<sup>3</sup>

Stigma is thought to be more prevalent in illnesses perceived to have uncertain or complex etiology. This may partially explain why stigma towards mental health conditions is much higher than it is to physical health problems.<sup>4</sup> One of the most significant repercussions is that they are less likely to have help-seeking behaviour if they feel their condition is stigmatized.<sup>5</sup> The sufferers isolate themselves and become difficult to make many social roles, such as finding a job.<sup>6</sup>

Other reasons for not seeking help for mental disorders may include a lack of knowledge to identify features of mental illnesses, ignorance about how to access treatment, and assumed discrimination against people diagnosed with mental illness.<sup>2</sup>

The severe manpower crisis in the field of mental health could easily lead to more undiagnosed patients which could directly or indirectly have impetus on community health at large.<sup>7</sup> India has 0.75 Psychiatrists per 100,000 populations, while the desirable number is anything above 3 Psychiatrists per 100,000. This is a very conservative estimate going by the figures of 6 Psychiatrists per 100,000 population in the high-income countries.<sup>8</sup>

Several mental health screening tools have been developed for clinical and research use. The SRQ-20 is a 20-item screening tool that was developed by the World Health Organization. The short format and dichotomous (yes/no) answers employed in the SRQ-20 make it a promising tool for the busy primary care setting. Many studies from the developing world have investigated the psychometric properties of the SRQ-20.<sup>7,9,10,11</sup>

The complete SRQ consists of twenty-five questions, which have to be answered by 'yes' or 'no'. Of these twenty-five questions, twenty are related to neurotic symptoms, four to psychotic symptoms, and one to convulsions. The SRQ-20 consists of the neurotic items only. These include depressive symptoms, anxiety, and psychosomatic complaints and have been found to detect probable cases of common mental disorder with judicious precision.<sup>12</sup>

Its administration time is 5-10 minutes.

### **Background**

Psychiatric co-morbidities are frequent in those attending the General OPD, but many of them go unrecognized and untreated. This is a cause of chronic suffering which could have been avoided. A population-based survey conducted in 2017 in Kerala reports that 12.43% of the adult population is affected by mental health conditions.<sup>13</sup>

WHO has raised the profile of mental health problems because, although directly causing very little mortality, they are responsible for a significant share of morbidity. The Global Burden of Disease report has revealed the

scale of the contribution of mental disorders, by use of an integrated measure of disease burden—the disability-adjusted life-year (DALY), which is the sum of years lived with disability and years of life lost.<sup>14</sup>

A 2017 Lancet study reports, there were 197.3 million (95% UI 178.5–216.4) people with mental disorders in India, comprising 14.3% of the total population of the country.<sup>15</sup> Mental disorders contributed to 4.7% (3.7–5.6) of the total DALYs in India in 2017, compared with 2.5% (2.0–3.1) in 1990.<sup>16</sup> There is also a high prevalence of depressive and anxiety disorders observed in Kerala.<sup>15</sup> A significant, but modest, a correlation exists between the prevalence of depressive disorders and suicide death rate at the state level for females and males in India.<sup>15,17</sup>

Despite the great burden of illness incurred by these conditions, research shows, worldwide, between 70 %-80 % of young people and adults do not receive the mental health care they need.<sup>18</sup> The gap between the burden of mental disorders and available evidence-based services is staggering in lower-middle-income countries.<sup>19</sup> Whereas one out of five persons with depression receives minimally adequate care in high-income countries, only one out of 10 receive care in upper-middle-income countries, and one out of 27 in lower-middle-income countries like India.<sup>20</sup>

Although disorders including insomnia, anxiety, fatigue, irritability, depressive moods, difficulty concentrating, and somatic complaints are very common among adults, they are quite often overlooked, and effective treatment is not provided.<sup>21</sup> Individuals with disorders with prominent somatic symptoms are commonly seen in primary care and other medical settings but they approach psychiatric health settings very less frequently. It is noteworthy that some of the mental disorders like major depressive disorder and panic disorder may initially manifest with primarily somatic symptoms. Somatic symptoms are frequently associated with psychological distress and psychopathology. Anxiety and depressive disorders may accompany somatic symptoms. Besides, the somatic component adds severity and complexity to depressive and anxiety disorders.<sup>22</sup>

Evidence shows that improved knowledge about mental health and mental disorders, better awareness of how to seek help and treatment, and reduced stigma against mental illness at the individual, community and institutional levels may promote early identification of mental disorders, improve mental health outcomes and increase the use of health services.<sup>2</sup>

Patients attending general medical OPDs may carry psychiatric symptoms. But they are unaware that they possess deviated mental health. They are not identified, treated or referred. This survey was intended to find out such deviation from mental health in a patient setting and

its prevalence in the society which will in turn reflect the society at large.

## METHODS

### Study design

A cross-sectional epidemiological study.

### Study setting and population

The study was carried out in patients reported in the Department of Medicine in the National Homoeopathy Research Institute in Mental Health, Kottayam, Kerala. Eligible participants included those who were 18 years or older. Those who are already diagnosed with psychiatric disorders and those who have come to visit Psychiatric OPDs were excluded. Both old and new cases were enrolled in the survey. The study purpose and details have been explained to them and participation was voluntary.

### Study duration

The survey was carried out for a period of 1 month, from January, 2020 to February, 2020.

### Instrument

The Self – Reporting Questionnaire 20-items, was represented bilingually (English and Malayalam) and it was provided to the patient for filling. The SRQ-20 was translated into Malayalam in a process of forward and back-translation.

### Statistical analysis

The data were statistically analyzed to find out the presence of psychiatric symptoms in the general population other than psychiatric patients using IBM SPSS software Version 20.0. The descriptive statistics of the data were represented using graphs and tables. A Chi-square test for Independence was used to check the association between variables.  $p<0.05$  was considered as statistically significant.

## RESULTS

3500 responses received, out of which 3213 were selected for analysis. The rest were discarded due to incomplete filling. The demographic details are depicted in Table 1. The questions and responses are depicted in Table 2.

### Depression

A patient who said yes to any two of the questions 9,10,15 and 18 and any two of the questions 2,3,8,14,17 was considered to have Depression. Out of the 3213 cases who responded to the questionnaire 516 (16.1%) were having depression. Chi-square test with 1 degree of freedom showed that there is a statistically significant

association ( $\chi^2=7.334$ ,  $p=0.007$ ,  $ES=0.05$ ) between Gender and Depression. The Odds Ratio for Female to Male for having Depression was 1.322 with 95% CI (1.080,1.618). Details are represented in Table 3.

**Table 1: Demographic details.**

Variables	No. of Cases (%) (N=3213)
<b>Age</b>	49.45±15.13
<b>Gender</b>	
Male	1165 (36.3)
Female	2048(63.7)
<b>Religion</b>	
Christian	1319(41.1)
Hindu	1713(53.3)
Muslim	166(5.2)
Information not available	15(0.5)
<b>Marital Status</b>	
Single	338(10.5)
Married	2660(82.8)
Separated	15(0.5)
Widow/widower	182(5.7)
Information not available	18(0.6)
<b>Height</b>	160.52±09.62
<b>Weight</b>	64.19±12.30
<b>BMI</b>	24.93±4.48
<b>Under weight (BMI&lt;18.5)</b>	186(5.8)
<b>Normal (15.50 to 24.99)</b>	1527(47.5)
<b>Overweight (25 to 29.99)</b>	1146(35.7)
<b>Obese (BMI ≥ 30)</b>	354(11.0)
<b>Cardiovascular system</b>	15 (0.5)
<b>Circulatory system</b>	158 (4.9)
<b>Dermatology</b>	430 (13.4)
<b>Endocrinology</b>	73 (2.3)
<b>ENT</b>	204 (6.3)
<b>Gastrointestinal system</b>	1 (0.03)
<b>Genitourinary system</b>	76 (2.4)
<b>Infertility</b>	45 (1.4)
<b>Genitourinary system-Male</b>	45 (1.4)
<b>Gynecology</b>	135 (4.2)
<b>Hepatobiliary system</b>	17 (0.5)
<b>Immunology</b>	131 (4.1)
<b>Infections</b>	13 (0.4)
<b>LSD???</b>	202 (6.3)
<b>Nervous system</b>	125 (3.9)
<b>Oncology</b>	38 (1.2)
<b>Ophthalmology</b>	6 (0.2)
<b>Respiratory system</b>	318 (9.9)
<b>Rheumatology</b>	712 (22.2)
<b>Urinary system</b>	108 (3.4)
<b>Infectious disease</b>	96 (3.0)
<b>Non- Infectious disease</b>	3117 (97.0)

Participants were belonging to different religions. The Chi-square test for Independence failed to show a statistically significant association between Religion and Depression.

**Table 2: SRQ-20 response.**

<b>Self-Reporting Questionnaire</b>	
<b>Q1. Headache</b>	1537 (47.8)
<b>Q2. Less appetite</b>	635 (19.8)
<b>Q3. Bad sleep</b>	1089 (33.9)
<b>Q4. Easily frightened</b>	736 (22.9)
<b>Q5. Hands shake</b>	410 (12.8)
<b>Q6. Nervous, tensed or worried</b>	856 (26.6)
<b>Q7. Poor Digestion</b>	944 (29.4)
<b>Q8. Trouble in thinking clearly</b>	445 (13.8)
<b>Q9. Unhappy</b>	773 (24.1)
<b>Q10. Crying more than usual</b>	294 (9.2)
<b>Q11. Difficulty in enjoying daily activities</b>	439 (13.7)
<b>Q12. Difficulty in making decisions</b>	543 (16.9)
<b>Q13. Daily work suffering</b>	496 (15.4)
<b>Q14. Unable to play a useful role in life</b>	1995 (62.1)
<b>Q15. Lost interest in things</b>	484 (15.1)
<b>Q16. Feels as a worthless person</b>	265 (8.2)
<b>Q17. Thought of ending life in mind</b>	221 (6.9)
<b>Q18. Feels tired all the time</b>	1216 (37.8)
<b>Q19. Uncomfortable feelings in life</b>	600 (18.7)
<b>Q20. Easily Tired</b>	1201 (37.4)
<b>Total Score</b>	4.72±3.89

The participants of the survey were the patients who came to the OPD of the Institute. Among the participants, 22.2% were undergoing treatment for Rheumatological complaints. 13.4% for Dermatological complaints and, 12.6% in the Endocrinology clinic. There was a statistically significant association between the system in

which the patient is undergoing treatment and the presence of depression. ( $\chi^2 = 53.687$ ,  $p < 0.001$ , ES=0.13). Among the 516 participants with symptoms of depression, 16% were suffering from Non- Infectious diseases while only 11.5% were suffering from infectious diseases.

### **Anxiety**

A patient was considered to be anxious if he/she answers yes to any two of the three questions 6,12 and 19. Anxiety symptoms reported in 550 (17.1%) among the respondents and the Odds Ratio for the female to male for having Anxiety was 1.149 with 95% CI (0.947,1.394).

There is a statistically significant association between marital status and Anxiety ( $\chi^2 = 8.060$ ,  $p = 0.045$ , ES=0.05). A significant association was also noticed in Gender, Religion, and BMI.

Association between their sufferings for which the patient is undergoing treatment also noticed ( $\chi^2 = 36.932$ ,  $p = 0.008$ , ES=0.11). Among the 550 participants with symptoms of anxiety, 17.3% were suffering from Non-Infectious diseases while 12.5% were suffering from Infectious diseases. Values are expressed in Table 4.

### **Depression and anxiety**

8.7% (279 out of 3213) of the respondents were having both Anxiety and depression. Chi-square test showed that there is a statistically significant association between Depression and Anxiety ( $\chi^2 = 591.614$ ,  $p < 0.001$ , ES=0.43). The odds ratio for a depressed patient to be anxious is 10.54 with 95%CI (8.51, 13.05).

Out of these 279 cases, 188 (67.4) were male and 91 (32.6) were female. 108 (38.7) were Christians, 155 (55.55) were Hindus and 15 (5.4) were Muslims. One was not disclosed the religion.

**Table 3: Relative components of the patients showing depression.**

Variables	Category	Depressed	Not Depressed	X <sup>2</sup>	P-value	Effect size
<b>Sex</b>	Female	356 (17.4)	1692 (82.6)	7.334	0.007	0.05
	Male	160 (13.7)	1005 (86.3)			
<b>Religion</b>	Christian	206 (15.6)	1113 (84.4)	0.520	0.771	0.01
	Hindu	282 (16.5)	1431 (83.5)			
<b>Marital Status</b>	Muslim	25 (15.1)	141 (84.9)	16.683	0.001	0.07
	Married	418 (15.7)	2242 (84.3)			
	Separated	4 (26.7)	11 (73.3)			
	Unmarried	44 (13.0)	294 (87.0)			
<b>BMI</b>	Widow/ Widower	47 (25.8)	135 (74.2)	0.928	0.819	0.02
	Under weight (BMI<18.5)	29 (15.6)	157 (84.4)			
	Normal (15.50 to 24.99)	255 (16.7)	1272 (83.3)			

Continued.

Variables	Category	Depressed	Not Depressed	X <sup>2</sup>	P-value	Effect size
Affected system	Overweight (25 to 29.99)	176 (15.4)	970 (84.6)			
	Obese (BMI $\geq$ 30)	56 (15.8)	298 (84.2)			
	Cardiovascular system	5 (33.3)	10 (66.7)			
	Circulatory system	22 (13.9)	136 (86.1)			
	Dermatology	44 (10.2)	386 (89.8)			
	Endocrinology	75 (18.5)	331 (81.5)			
	ENT	14 (19.2)	59 (80.8)			
	Gastrointestinal system	36 (17.6)	168 (82.4)			
	Genitourinary system	0 (0.0)	1 (100.0)			
	Genitourinary system-infertility	2 (2.6)	74 (97.4)			
Type of disease	Genitourinary system-male	4 (8.9)	41 (91.1)	53.687	<0.001	0.13
	Gynecology	20 (14.8)	115 (85.2)			
	Hepatobiliary system	4 (23.5)	13 (76.5)			
	Immunology	16 (12.2)	115 (87.8)			
	Infections	4 (30.8)	9 (69.2)			
	Life Style Diseases	33 (16.3)	169 (83.7)			
	Nervous system	28 (22.4)	97 (77.6)			
	Oncology	9 (23.7)	29 (76.3)			
	Ophthalmology	0 (0.0)	6 (100.0)			
	Respiratory system	38 (11.9)	280 (88.1)			
	Rheumatology	137 (19.2)	575 (80.8)			
	Urinary system	25 (23.1)	83 (76.9)			
	Infectious	11 (11.5)	85 (88.5)	1.554	0.213	0.02
	Non- Infectious	505 (16.2)	2612 (83.8)			

Table 4: Relative components of the patients showing anxiety.

Variables	Category	Anxious	Not Anxious	X <sup>2</sup>	P value	Effect size
Sex	Female	365 (17.8)	1683 (82.2)	1.975	0.160	0.03
	Male	185 (15.9)	980 (84.1)			
Religion	Christian	225 (17.1)	1094 (82.9)	0.651	0.722	0.01
	Hindu	288 (16.8)	1425 (83.2)			
	Muslim	32 (19.3)	134 (80.7)			
Marital Status	Married	437 (16.4)	2223 (83.6)	8.060	0.045	0.05
	Separated	4 (26.7)	11 (73.3)			
	Unmarried	64 (18.9)	274 (81.1)			
	Widow/ Widower	43 (23.6)	139 (76.4)			
BMI	Under weight (BMI < 18.5)	24 (12.9)	162 (87.1)	4.181	0.243	0.04
	Normal (15.50 to 24.99)	276 (18.1)	1251 (81.9)			
	Overweight (25 to 29.99)	196 (17.1)	950 (82.9)			
	Obese (BMI $\geq$ 30)	54 (15.3)	300 (84.7)			
Affected system	Cardiovascular system	4 (26.7)	11 (73.3)	36.932	0.008	0.11
	Circulatory system	21 (13.3)	137 (86.7)			
	Dermatology	54 (12.6)	376 (87.4)			
	Endocrinology	74 (18.2)	332 (81.8)			

Continued.

Variables	Category	Anxious	Not Anxious	$\chi^2$	P value	Effect size
	ENT	16 (21.9)	57 (78.1)			
	Gastrointestinal system	38 (18.6)	166 (81.4)			
	Genitourinary system	0 (0.0)	1 (100.0)			
	Genitourinary system-infertility	8 (10.5)	68 (89.5)			
	Genitourinary system-male	7 (15.6)	38 (84.4)			
	Gynecology	24 (17.8)	111 (82.2)			
	Hepatobiliary system	4 (23.5)	13 (76.5)			
	Immunology	30 (22.9)	101 (77.1)			
	Infections	2 (15.4)	11 (84.6)			
	Life Style Diseases	24 (11.9)	178 (88.1)			
	Nervous system	33 (26.4)	92 (73.6)			
	Oncology	6 (15.8)	32 (84.2)			
	Ophthalmology	0 (0.0)	6 (100.0)			
	Respiratory system	43 (13.5)	275 (86.5)			
	Rheumatology	139 (19.5)	573 (80.5)			
	Urinary system	23 (21.3)	85 (78.7)			
Type of disease	Infectious	12 (12.5)	84 (87.5)	1.487	0.223	0.02
	Non- Infectious	538 (17.3)	2579 (82.7)			

**Table 5: Relative components of the patients showing somatic symptoms.**

Variables	Category	Somatic symptoms present	Somatic symptoms absent	$\chi^2$	P value	Effect size
Sex	Female	1034 (50.5)	1014 (49.5)	14.809	<0.001	0.07
	Male	506 (43.4)	659 (56.6)			
Religion	Christian	629 (47.7)	690 (52.3)	1.472	0.479	0.02
	Hindu	814 (47.5)	899 (52.5)			
	Muslim	87 (52.4)	79 (47.6)			
Marital Status	Married	1261 (47.4)	1399 (52.6)	18.246	<0.001	0.08
	Separated	8 (53.3)	7 (46.7)			
	Unmarried	149 (44.1)	189 (55.9)			
	Widow/ Widower	114 (62.6)	68 (37.4)			
BMI	Under weight (BMI<18.5)	87 (46.8)	99 (53.2)	1.533	0.675	0.02
	Normal (15.50 to 24.99)	749 (49.1)	778 (50.9)			
	Overweight (25 to 29.99)	540 (47.1)	606 (52.9)			
	Obese (BMI $\geq$ 30)	164 (46.3)	190 (53.7)			
	Cardiovascular system	8 (53.3)	7 (46.7)	92.518	<0.001	0.17
	Circulatory system	57 (36.1)	101 (63.9)			
	Dermatology	164 (38.1)	266 (61.9)			
	Endocrinology	216 (53.2)	190 (46.8)			
	ENT	36 (49.3)	37 (50.7)			
	Gastrointestinal system	124 (60.8)	80 (39.2)			
	Genitourinary system	0 (0.0)	1 (100.0)			
	Genitourinary system-infertility	22 (28.9)	54 (71.1)			
	Genitourinary system-male	15 (33.3)	30 (66.7)			
	Gynecology	61 (45.2)	74 (54.8)			
	Hepatobiliary system	10 (58.8)	7 (41.2)			

Continued.

Variables	Category	Somatic symptoms present	Somatic symptoms absent	X <sup>2</sup>	P value	Effect size
Type of disease	Immunology	59 (45.0)	72 (55.0)			
	Infections	9 (69.2)	4 (30.8)			
	Life Style Diseases	100 (49.5)	102 (50.5)			
	Nervous system	81 (64.8)	44 (35.2)			
	Oncology	24 (63.2)	14 (36.8)			
	Ophthalmology	3 (50.0)	3 (50.0)			
	Respiratory system	129 (40.6)	189 (59.4)			
	Rheumatology	365 (51.3)	347 (48.7)			
	Urinary system	57 (52.8)	51 (47.2)			
	Infectious	44 (45.8)	52 (54.2)	0.174	0.676	0.007
	Non- Infectious	1496 (48.0)	1621 (52.0)			

20% of the separated people were both depressed and anxious. Among the widow/ widowers, 17.0% were both depressed and anxious. 8.0% and 8.5% respectively of the married and unmarried people were depressed and anxious.

8.1% of the underweight people were depressed and anxious. 9.2% of the participants with normal BMI, 8.0% of the overweight respondents, and 9.0% of the obese people were both depressed and anxious.

### Somatic symptoms

The patient who responded yes to any of the questions 1,2,3,4,5,7. The odds ratio for female to male for having somatic symptoms was 0.757 with 95% CI :(0.655,0.875). Table 5 shows the details of somatic symptoms

### DISCUSSION

This was an epidemiological survey conducted in the General Medicine OPD of the National Homoeopathy Research Institute in Mental Health. It is seen that mental health is a very vulnerable issue because of many reasons. People are hesitant to take adequate treatment because of poor mental health literacy, lack of psychiatric hospitals, or even stigma. This results in the progression of the severity of the diseases, which adds to considerable morbidity and poor functioning of the individual. Moreover, patients with depression and other psychiatric illnesses often develop chronic medical illnesses at an earlier age due to both maladaptive health risk behaviors as well as the physiologic effects of their psychiatric illnesses.<sup>23</sup> There is also emerging evidence that the distress, symptom burden, and functional impairment and physiologic changes associated with chronic medical disorders often worsen the course of affective illness.<sup>24,25</sup> So, the study was aimed to detect patients with common mental diseases like anxiety and/or depression along with somatic symptoms.

The study data revealed that 16.1% of the patients suffer from depression, 17.1% were having anxiety, 8.7% were having both anxiety and depression. 47.3 % of the total respondents were found to have somatic symptoms.

The prevalence of anxiety and depressive symptoms reported in our study are found to be higher than the total prevalence found in India.<sup>15</sup> Gender differentials are also observed in the prevalence of common mental disorders (CMD), a finding that has been consistently reported in psychiatric epidemiology. The prevalence of depressive and anxiety disorders are found to be higher among females. Many studies report the same.<sup>26,27</sup> While the exact reason for such gender differences concerning CMD prevalence is not known, it is likely to be a myriad of social, behavioural, psychological, and biological factors that possibly interact with one another.<sup>27</sup>

Being divorced or separated could be a risk factor for depression and the cross-sectional nature of this study did not allow us to determine whether depression caused divorce/separation or vice versa. However, it is thought to be bidirectional.<sup>28</sup>

Epidemiological data indicate that individuals with obesity have an increased risk of developing a depressive disorder. The relationship between obesity and depression is bi-directional: individuals with depression have a 50% higher risk of developing obesity and, conversely, people with obesity have an increased risk of developing depressive symptoms.<sup>29</sup> But in this study, no such relationship was found; persons with normal BMI were found to have a high prevalence of depression than those with obesity. This could be due to prolonged somatic suffering and other multi-directional contributing factors.

In cardiovascular disease, the risk of depression is two to three times higher than in other people.<sup>30</sup> The prevalence of depression in patients with cardiovascular diseases is 33% in comparison to 9.3% reported in an earlier study.<sup>31</sup>

The burden of depression was found to be highly prevalent in those with rheumatological diseases when compared to other systems and it aligns with earlier findings too.<sup>32,33</sup> This may be due to the common pathogenic pathway concerning emotions and pain. The pathogenesis of mood, anxiety, sleep disorders, and pain in rheumatic diseases, is multifactorial and shows numerous intersecting factors, such as genetic factors, changes in the central nervous system (CNS) and autonomic nervous system, inflammatory alterations, and environmental factors. Pain, by itself, can produce anxiety and depression.<sup>34</sup> Depression in subjects with arthritis can exacerbate the pain.<sup>35-37</sup> So, if proper treatment measures are taken for depressive symptoms, it may prove helpful in increasing the overall quality of life of the patient.

Skin disorder can attribute to emotional distress and psychiatric illness leading to impaired psychosocial adjustments. Emotional and psychosocial distress, in turn, may lead to psychosomatic skin disorders. Dermatological diseases have a negative effect that could affect daily life, self-confidence, and self-respect.<sup>38</sup> Previous studies have reported a high prevalence of depressive and anxiety symptoms in those with dermatological diseases.<sup>37,38,40</sup> This study also depicts that depressive symptoms are commonly present in those with dermatological symptoms.

Endocrine disorders are frequently accompanied by psychological disturbances. On the contrary, psychiatric disorders, also demonstrate a constant pattern of endocrine dysfunctions. Numerous studies have shown a high correlation between depression and endocrinological disorders.<sup>41,42</sup> Psychiatric disorders are highly prevalent as comorbidities in endocrinological disorders and are largely unrecognized in the primary care setting.<sup>43</sup>

The strength of this study is the huge sample size, by which we were able to derive valid inferences. Non-response and substitution were the drawbacks of the study.

## CONCLUSION

The population with somatic symptoms often unnoticed or unrecognized the underlying psychiatric conditions as they were tuned to recognize the physical symptoms. A multi-dimensional approach is needed to treat such patients and isolated approaches rather backfire with unenduring sufferings to the race. A comprehensive holistic approach is needed in conditions especially of chronic in nature. Homoeopathy and other AYUSH systems can play a major role in this area.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Moorthi SK, Muraleedharan KC, Prasannakumar R, Radhakrishnan R, Arun KL. The prevalence of psychiatric symptoms in patients seeking treatment other than psychiatric conditions: a cross-sectional study. *Int J Community Med Public Health* 2021;8:2942-51.