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The Underlying Mental Health Status of Women in the Indian Minority Population of Malaysia

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ABSTRACT— Mental health issues are a concern in all societies due to their debilitating effect on an individual's quality of life and capacity to function in society. In 2015 the prevalence of mental health problems among Malaysian adults was 29.2%; this was an increase from 10.7% in 1996. The prevalence of mental health problems is affected by many factors, including belonging to a minority population. This study aimed to evaluate the demographic factors associated with the prevalence of depression, anxiety and stress among Indian-Malaysian women. A cross-sectional study was conducted in Indian majority localities within the Klang Valley area of Malaysia in 2018 and 2019. 611 women participated by completing a self-administered questionnaire which included indices for the measurement of depression, anxiety, stress (DASS-21). The prevalence of depression in the study population was 36.2%, anxiety was 76.8%, while stress was 18%. Pearson's Chi-Square test revealed that significant factors associated with depression were age and marital status; for anxiety significant risk factors were age, marital status, household income, education level and employment status, and for stress, the significant risk factors were marital status, household income, education level and employment. Underlying mental health issues are at a high prevalence among Indian-Malaysian women.

KEYWORDS: Women's health; Mental health; Depression; Anxiety; Stress.

1. INTRODUCTION

Mental health is an essential component of an individual's well-being and contributes to a person's capacity to function in society. It determines the way we think, feel and interact with the world around us, and most importantly, other people. Mental health is often seen as a separate entity from other aspects of health, and mental illness is not regarded in the same way as physical conditions like heart disease, diabetes and cancer. However, mental illness is just another medical condition which can be treated and may sometimes be preventable [1], [2]. Mental health issues are a great concern in our society because they can often be unrecognized but at the same time have a huge effect on the quality of life. The World Health Organisation (WHO) reported in 2001 that approximately 450 million people around the world suffer from mental health issues making it one of the leading causes of ill-health and disability worldwide. The WHO report also estimated that depressive disorders, a particularly common mental health issue, would rank second in global prevalence, only behind ischaemic heart disease [1]. The perception has been that women are more often affected by mental health issues like depression and anxiety than men. According to the WHO, depressive disorders account for close to 42% of the disability from neuropsychiatric disorders among women compared to 29.3% among men [3].

Malaysia is a fast-developing, multiethnic country, and is expected to achieve Developed Nation status very

soon. In spite of this, significant parts of the rural and urban population live in relative poverty. Malaysia has a relatively young population with a median age of 28.9 years. The Malaysian population is made up of 61.7% Bumiputras (ethnic Malays and other indigenous groups), 20.8% Chinese, 6.2% Indian and 0.9% from other ethnicities. A significant part of the population, 10.4% is made up of non-citizens (Department of Statistics Malaysia). The Indian people started to settle in Malaysia from the 18th century under British colonial influence. Originally most worked as labourers on the railways and plantations, others worked as teachers or were part of the military. Most Indian-Malaysians belong to the Tamil cultural group whose ancestors came from South India or Sri Lanka. The descendants of these colonial migrants make a significant contribution to the cultural blend of Malaysia.

In the Malaysian context, the prevalence of mental health issues among adults is reported to be at 29% based on the National Health Morbidity Survey (NHMS) conducted in 2015. The findings of NHMS 2011, showed that in the Malaysian population depression affected females relatively more (2.3%) than males (1.4%) and that the prevalence of current depression was highest in the Indian ethnic population at 4.6% [4]. This high prevalence of depression is alarming and needs to be addressed urgently because mental illness not only impacts upon someone's sense of well-being but is closely associated to risk factor for the development of many non-communicable diseases such as cardiovascular disease, diabetes, respiratory diseases and cancer [5], [6]. Some of the most common mental health issues found within the community are depression, anxiety disorders, and stress. These are, in fact, normal responses towards conflict and difficult situations that everyone experiences at some point in their life. Mental illnesses occur when these responses become exaggerated, persistent and start to interfere with one's ability to function normally. Table 1 gives the definitions of these disorders and their respective signs and symptoms [7- 9].

The objective of this study was to measure the incidence of depression, anxiety and stress in Indian-Malaysian women, and to understand the contributing factors. Hopefully, this will enable us to provide better care and management for affected patients in the future to minimize problems that can arise from these conditions.

2. Methods

2.1 Participants and Setting

This study was approved by the Perdana University Institutional Review Board (IRB) (PUIRBHR0174). Informed, written consent was individually obtained from all participants. Each participant was provided with an information sheet about the study in their preferred language (English or Bahasa Malaysia). In the consent form, participants were asked if they fully understood the information about the study and if they agreed to participate. Signed consent forms are retained by the lead investigator. The data collected cannot be linked to a specific participant and is, therefore, anonymous. Data collection was done in two phases; the first phase was conducted from June to July 2018 while the second phase of data collection was done from June to July 2019. The data was collected from Indian-Malaysian women living in the Klang Valley area of Malaysia aged 18 and over. A convenience sampling method was applied to recruit participants from the Indian majority localities. Women with diagnosed mental health conditions or who were pregnant were excluded. Women were recruited in the community from within a 500-metre radius of a private practitioner clinic. Women unable to speak, read or write Bahasa Malaysia or English were excluded from the recruitment process.

2.2 Study Instrument

The questionnaire used in this study gathered information on socio-demographics, physical and mental

health metrics. In the socio-demographic section, the participants provided information on age, marital and working status, education level and household income. For the measurement of their mental health status, the participants were requested to complete a mental health assessment tool; the Depression Anxiety Stress Scales 21 (DASS-21) questionnaire. DASS is a set of three self-report scales designed to evaluate the severity of perceived states of depression, anxiety and stress. Each of the three DASS-21 scales contains seven items. Participants were requested to rate the extent of each state that they may have experienced over the previous one week using a 4-point severity scale ranging from 0 (does not apply to me at all), to 3 (applies to me most of the time). The scores for depression, anxiety and stress are then calculated by summing the scores for the relevant items and multiplied by two to equivate it to the original DASS-42 questionnaire [10]. Several local studies showed that the DASS-21 is an effective instrument to measure symptoms of depression, anxiety and stress in adult populations in both clinical and non-clinical settings in Malaysia [11- 14]. Participants were grouped according to the Manual for Depression Anxiety & Stress Scales as in Table 2 based on their DASS-21 scores [15].

2.3 Statistical Analysis

Statistical analysis was conducted to calculate the prevalence of depression, anxiety and stress in the study population, and to relate this to socio-demographic factors using the Pearson's Chi-square test with a 95% confidence interval (CI). These analyses were performed using the Statistical Package for the Social Science (SPSS) software, version 23. A p value < 0.05 was taken as statistically significant for all analyses.

3. Results

A total of 1050 Indian-Malaysian women were approached to participate in this study, and 611 women completed the questionnaire yielding a 58% response rate. Tables 3, 4 and 5. shows the association of demographic factors in the population with depression, anxiety and stress indices. Overall, 63.8% of the participants scored normal on the depression scale (n = 390). 17.5% experienced mild depression (n = 107), 14.7% experienced moderate depression (n = 90), 2.1% experienced extremely severe depression (n = 13) and 1.8% experienced severe depression (n = 11). Analysis of the anxiety scale revealed the number of participants was highest in the moderate anxiety score group (n = 234, 38.3%) followed by normal (n = 142, 23.2%), severe anxiety (n=103, 16.9%) and extremely severe anxiety (n = 78, 12.8%) with mild anxiety being the least prevalent score at 8.8% (n = 54). As for the stress measurement, 82% the participants were experiencing normal stress (n = 501). The next most prevalent score was for mild stress (n = 59, 9.7%) followed by moderate stress (n = 29, 4.7%) and severe stress (n = 19, 3.1%). Only 0.5% of participants experienced extremely severe stress (n = 3). In this population, the overall prevalence of depression, anxiety and stress were 36.2%, 76.8% and 18% respectively.

3.1 Age

There were age-related differences in the frequency of depression in the study population ($p = 0.005$). Women in the < 25 years age group had the highest overall level of depression (Table 3). Only 52.5% (n = 115) showed no depressive signs, with mild depression at 22.8% being the most prevalent depressed state for women of this age (n = 50). There were very few participants in the > 65 years age group where 42.9% of participants exhibited some form of depression, but the group with the next highest rate of depression was the 25 to 35 years group, where 34.1% (n = 47) of participants showed signs of depression. Severe depression was exhibited by 13 participants in the population, and the highest proportion was observed in the 46-55 years age group (n = 5, 6.8 %). The prevalence of anxiety was also age-related ($p = 0.015$). The < 25 years age group had the highest level of anxiety with 86.3% (n = 189) showing some signs of anxiety, and this age group had the highest frequency for each of the different severities of anxiety. This age group had a severe anxiety frequency that was only matched 36 to 45 year olds at 20.5% (n=45) and 19.5% (n =

26) respectively. There was no relationship between age and stress levels (p = 0.161) with similar severity being experienced across the age groups.

3.2 Marital Status

There was a relationship between marital status and depression (p < 0.001). The lowest frequency of overall depression was measured in the divorced women, where just 31% experienced some form of depression (n = 22) compared to 36.2% for the whole population (Table 3). The highest frequency of moderate depression was seen in women who were widowed at 20.8% (n = 21). The highest prevalence of severe depression was 3.7% (n = 10) seen in the married group. Married status was also associated with states of anxiety (p = 0.015). While separated women had the lowest frequency of anxiety, this was a very small group (n = 5). The single and married women had the next lowest frequency of anxiety with 28.4% (n = 46) and 27.6% (n = 75) showing no signs of anxiety. The highest frequency and most severe signs of anxiety were measured in divorced women, where only 7.0% (n = 5) experienced no anxiety. We found that 85.9 % (n = 61) of divorced women in this study experienced at least moderate anxiety. Again the number of separated participants was very small, the group with the next highest frequency of stress were the married women where 22.1% (n = 60) had some signs of stress. Stress in the married participants also tended to be more severe with the highest frequencies in the moderate-severe and extremely severe intensities. The frequency of mild depression was equivalent to other status groups.

3.3 Household income

We investigated the association between the household income of the 611 participants and their mental health status (Table 4). The mean household income in Malaysia in 2019 was RM 7,900 (1,895 USD) per calendar month (pcm) and the median income was RM 5,875 (1,410 USD) pcm (Department of Statistics Malaysia). The analysis revealed that most of the participants came from households with an income of less than RM 3,000 per calendar month (pcm) (n = 526, 86.1%). The next largest group was the RM 3,001 to RM 5,000 pcm group at 9% (n = 55) followed by RM 5001 to RM 10,000 pcm (n = 2 5, 4.1%), RM 10,001 to RM 20,000 pcm (n = 4, 0.7%) and lastly more than RM20,000 pcm (n = 1, 0.2%). Very few (n = 5) of our participants belonged to households with a monthly income of more than RM 10,000 (2,400 USD). There was no relationship between depression and household income (p = 0.121). There was a relationship between household income and anxiety (p < 0.001) with only 18.4% (n = 97) of women in households earning less than RM 3,000 (720 USD) pcm experiencing no anxiety. While anxiety was at a lower frequency among women in higher-earning households, the frequency of extremely severe anxiety was lowest in the lowest income households at 12% (n = 63). There was also a significant relationship between household income and stress experienced by women (p < 0.001). The highest frequency of stress was measured in women from households with a monthly income of RM 5,001 to RM 10,000 (1,200 to 2,400 USD) pcm. We found that 44% (n = 9) of women in this income group experienced stress of some severity.

3.4 Education Level

The level of education of the participants was related to their mental health status. Out of our study population, 7% (n=43) of participants left education at Standard 6 around age 12 years (primary/ junior school completion, 6th grade). Form 6 (high school graduation, 12th grade) education was completed by 78.2% (n = 478) of participants at around age 18 years. A certificate in further education was held by 2% (n = 12) of participants and a diploma in further education was held by 2.5% (n = 15) participants. A university degree was held by 7.9% of participants (n = 48) and a higher degree was held by 2.5% (n = 15) of participants.

There was no association between educational level and the severity of depression experienced by the

women in this study ($p = 0.121$). There was an association between educational level and anxiety ($p < 0.001$). The highest frequency of anxiety was found in the participants educated to form 6 level with just 14% (n = 67) experiencing no signs of anxiety. Participants in this group also experienced the most severe anxiety, with 19.5% (n = 93) and 13.2% (n = 63) experiencing severe and extremely severe anxiety, respectively. The level of stress experienced by the participants was also related to their education level ($p = 0.004$). Those with postgraduate degrees experienced the highest rate of stress, with 33.3% (n = 5) of participants in this group experiencing stress. However, this was mild or moderate stress only. The lowest rate of stress was seen in the diploma level participants, with 93.3% (n = 14) experiencing no signs of stress. Degree level participants had the second-highest rate of stress at 29.2% (n = 14) of participants having some signs of stress and 10.4% (n = 5) exhibiting signs of severe stress.

3.5 Work Status

The last demographic factor studied was the work status of the participants. In 2019, the unemployment rate for Malaysia was 3.3% (Department of Statistics Malaysia). The overall Labour Force Participation Rate (LFPR) was 68.7%, and 55.6% for women. Of that outside of the paid workforce, the majority (83.7%) were engaged in housework or childcare, and 9.4% were retired. In our study population of Indian-Malaysian women, 79.2% were employed (n = 484) and 20.8% were unemployed (n = 127).

There was no association between the employment status of the participants and their rate of depression ($p = 0.236$) or stress ($p = 0.054$). There was a significant difference in anxiety levels between women who had paid employment and those who did not ($p < 0.001$). Those employed had a higher rate of anxiety with just 17.8% (n = 86) showing no signs of anxiety compared to 44.1% (n = 56) of unemployed participants who showed no signs of anxiety. The increased rate of anxiety is seen mainly at a moderate level with 42.8% (n = 207) of employed participants.

4. Discussion

We found that 36.2% of the Indian-Malaysian women in this study experienced depression, 76.8% experienced anxiety and 18% experienced stress based on the Depression Anxiety Stress Scales 21 (DASS 21). A study conducted in 2016, involving 576 adults from all ethnicities attending six primary health clinics in Klang Valley, Malaysia, reported prevalence of depression, anxiety and stress as 20.5%, 44.5% and 10.1% respectively. Our study was located in the same geographic area but was focused on a single demographic subgroup. We found that the rates of depression, anxiety and stress among Indian-Malaysian women was higher than in the general population [11]. Another study found that the prevalence of depression, anxiety, and stress among an elderly Malay population in a rural community in Malaysia was 27.8%, 22.6%, and 8.7%, again this was also lower than our present study which is located in an urban area [16]. In India, a similar study conducted among women aged 18 to 59 years, residing in the rural area of Puducherry, revealed that the prevalence of depression, anxiety and stress were 15%, 10.6%, and 5% respectively, which was much lower than in this study [17]. Taken together, these studies raise questions about the comparisons between rural and urban populations and also geographic locations where subgroups are part of the ethnic majority or belong to an ethnic minority. By comparison, a recent study among the general population in China, investigating psychological responses during the initial stage of the 2019 Coronavirus Disease (COVID-19) Epidemic, the prevalence of DASS subscale indicators were 16.5% for moderate to severe depressive symptoms; 28.8% for moderate to severe anxiety symptoms; and 8.1% for moderate to severe stress levels; which were again also lower than in our present study [18].

We found that the factors influencing depression among Indian-Malaysian women were age and marital status. A study among small and medium enterprise workers in Indonesia, Malaysia, Thailand, and Vietnam

showed that depression was predicted by age and also employment status [19]. Household income, education level and employment status did not influence the rate of depression among our participants. Globally women experience depression at 1.7 times the rate of men [20]. Younger age has been associated with depression, and young women aged 18 to 24 in Canada have more than twice the rate of depression as compared to young men [21]. The gender dichotomy in depression rates begins at puberty and returns to equivalence from the age of 65 years; consequently, the abrupt changes in ovarian hormone levels, particularly oestrogen, has been implicated in the development of a depressive state in young women. This area of endocrinology is wildly understudied with most work being conducted in animal models. Oestrogen receptors are expressed by multiple nuclei in the brain associated with emotional state and certain areas of the female brain, such as the amygdala undergo significant structural changes during puberty [22]. The importance of familial factors should also not be underestimated, where the career ambitions of young women may conflict with obligations in caring for junior and elderly family members as well as expectations around marriage.

We noted that divorced women in our study had the lowest rate of depression. A study from the US suggested that married women were more reluctant to report depression and so the condition was under-diagnosed in this group and that the mental health benefits of marriage were more significant for men than for women [23]. We found the highest rate of extremely severe depression among married Indian-Malaysian women, and this may relate to being trapped in difficult marital relationships or the pressures of bringing up children on a modest income.

Anxiety levels among women are generally greater than for men, specifically generalized anxiety disorder (GAD) is twice as common in women and is more often associated with physical comorbidity [24]. Panic disorder and specific phobias are also twice as common in women, while social anxiety disorder is only slightly more common in women than in men. In our study, the experience of anxiety was significantly affected by all five parameters examined. Anxiety levels were highest in young women under the age of 25 years. Approximately 80% of women of reproductive age experience at least one mental or physical symptom associated with the hormonal fluctuations of the menstrual cycle [25]. In addition to biology, other factors impacting upon anxiety among younger women may be a greater sensitivity to relationship problems and also dealing with family and societal expectations [26]. While divorced women had the lowest frequency of depression and stress in our study, they had the highest frequency of anxiety. The elevated anxiety in this group is a consequence of a sense of loss, and uncertainty about the future following the end of an established relationship. It seems logical that women belonging to the lowest income households should experience the highest level of anxiety. Low income causes anxiety about food security, paying utility bills, healthcare availability, children's education and maintaining a home. In a Malaysian context, other factors found to be important in influencing anxiety were low self-esteem, illness, work-place problems, family problems, domestic violence and religious issues [27]. Interestingly, the highest levels of anxiety were among those who had completed a high school education but who had not gone on to university, those who left school early had a relatively low prevalence of anxiety. Higher education has been identified as a cumulative protective factor in the development of anxiety in a cohort study with 33,000 participants [28].

The rate of stress within this population was not influenced by age or employment status but was influenced by marital status, household income and education level. The highest rates of stress were seen in married women and those with a household income of RM 5,000 to 10,000 pcm. Median household income in Malaysia is RM 5,875 pcm and 95.0% of the women in our study came households with an income of less than RM 5,000 pcm. However, women from the least affluent households with an income < RM 3,000 pcm

did not have the highest prevalence of stress. This may reflect the pressures associated with supporting a family, those on the lowest incomes may be single and childless, and so have fewer family responsibilities.

5. Conclusion

The prevalence of depression, anxiety and stress among Indian-Malaysian women within Klang Valley is influenced by certain socio-economic factors. The prevalence and severity of each DASS subscale measurements of adverse mental status were higher in this study of Indian-Malaysian women than for the wider population. Currently, there is no insurance coverage for mental healthcare and treatment in Malaysia. Neighbouring Singapore provides an option for insurance for its citizens, covering five types of mental illness, including depression. The government should work with non-governmental organizations to address this issue. At the health care system level, mental health screening should be conducted at a larger scale within the general population to study the burden of the mental illnesses in Malaysia. Individuals with a high DASS-21 score should be followed-up with diagnostic tests based on DSM-V to enable proper treatment and management. At the community level, preventative interventions such as health education and awareness programs on mental health should be conducted regularly as this will help curb the stigma attached to mental health illness [21- 23].

Table 1: Definition, signs and symptoms of Anxiety, Depression and Stress.

Type of mental illness	Definition	Signs and Symptoms
Depression disorder	Depression is a mood disorder characterized by persistent feelings of sadness and loss of interest for at least 2 weeks.	Include: • a depressed mood • reduced interest or pleasure in activities previously enjoyed • a loss of sexual desire • appetite changes • unintentional weight loss or gain • disturbed sleeping pattern • agitation, restlessness, and pacing up and down • reduced movement and speech • fatigue or loss of energy • feeling worthless or guilt • difficulty thinking, concentrating, or making decisions • recurrent thoughts of death or suicide, or an attempt at suicide
Anxiety disorder	Anxiety is an emotion characterized by feelings of tension, worry and physical effects like increased blood pressure. When the duration or severity of this emotion is out of proportion to the original stressor, it reaches the stage of a disorder.	Symptoms of Generalized Anxiety Disorder include: • restlessness, and a feeling of being "on-edge" • uncontrollable feelings of worry • increased irritability • concentration difficulties • sleep difficulties, such as problems in falling or staying asleep Some other types of anxiety disorders include: panic disorder, social anxiety disorder and phobia.
Stress	Stress is the body's natural defence against predators and danger. It causes increased hormone production to enable one to evade or confront danger, also known as the fight-or-flight response. Stress can be acute or chronic. Chronic stress predisposes a person to have	Can be divided into physical and emotional effects. Physical effects include: • sweating • back pain or chest pain • cramps or muscle spasms • fainting • headaches • nervous twitches • pins and needles sensations

other mental health disorders like depression and anxiety.

Emotional reactions include:

- anger
- burnout
- concentration issues
- fatigue
- a feeling of insecurity
- forgetfulness
- irritability
- nail biting
- restlessness
- sadness.

Table 2: Interpretations of DASS Scores

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Table 3: Association of population age and marital status with depression, anxiety and stress scores (N=611).

ipants n	Depression					Anxiety					Stress			
	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	Se n
19	115 (52.5)	50 (22.8)	46 (21.0)	5 (2.3)	3 (1.4)	30 (13.7)	23 (10.5)	90 (41.1)	45 (20.5)	31 (14.2)	170 (77.6)	33 (15.1)	10 (4.6)	
38	91 (65.9)	22 (15.9)	20 (14.5)	2 (1.4)	3 (2.2)	32 (23.2)	13 (9.4)	56 (40.6)	19 (13.8)	18 (13.0)	118 (85.5)	7 (5.1)	8 (5.8)	
33	98 (73.7)	18 (13.5)	14 (10.5)	2 (1.5)	1 (0.8)	40 (30.1)	9 (6.8)	43 (32.3)	26 (19.5)	15 (11.3)	115 (86.5)	7 (5.3)	7 (5.3)	
74	54 (73.0)	11 (14.9)	2 (2.7)	2 (2.7)	5 (6.8)	21 (28.4)	5 (6.8)	32 (43.2)	7 (9.5)	9 (12.2)	61 (82.4)	6 (8.1)	3 (4.1)	
40	28 (70)	5 (12.5)	6 (15)	0 (0.0)	1 (2.5)	14 (35.0)	4 (10.0)	13 (32.5)	5 (12.5)	4 (10.0)	33 (82.5)	4 (10.0)	1 (2.5)	
7	4 (57.1)	1 (14.3)	2 (28.6)	0 (0.0)	0 (0.0)	5 (71.4)	0 (0.0)	0 (0.0)	1 (14.3)	1 (14.3)	4 (57.1)	2 (28.6)	0 (0.0)	(
			p = 0.005					p = 0.015					p = 0.161	
62	102 (63.0)	28 (17.3)	27 (16.7)	5 (3.1)	0 (0.0)	46 (28.4)	18 (11.1)	60 (37.0)	22 (13.6)	16 (9.9)	138 (85.2)	16 (9.9)	7 (4.3)	
72	171 (62.9)	50 (18.4)	37 (13.6)	4 (1.5)	10 (3.7)	75 (27.6)	17 (6.3)	97 (35.7)	46 (16.9)	37 (13.6)	212 (77.9)	26 (9.6)	18 (6.6)	
01	65 (64.4)	21 (20.8)	13 (12.9)	1 (1.0)	1 (1.0)	14 (13.9)	13 (12.9)	42 (41.6)	19 (18.8)	13 (12.9)	88 (87.1)	10 (9.9)	2 (2.0)	

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71	49 (69.0)	8 (11.3)	13 (18.3)	1 (1.4)	0 (0.0)	5 (7.0)	5 (7.0)	34 (47.9)	16 (22.5)	11 (15.5)	62 (87.3)	6 (8.5)	1 (1.4)	
5	3 (60.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (40.0)	2 (40.0)	1 (20.0)	1 (20.0)	0 (0.0)	1 (20.0)	1 (20.0)	1 (20.0)	1 (20.0)	(
			p < 0.001					p = 0.015					p < 0.001	

Table 4: Association of population income and education levels with depression, anxiety and stress scores (N=611).

cipants n	Depression					Anxiety					Stress			S
	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	
526	338 (64.3)	98 (18.6)	72 (13.7)	7 (1.3)	11 (2.1)	97 (18.4)	48 (9.1)	219 (41.6)	99 (18.8)	63 (12.0)	442 (84.0)	51 (9.7)	21 (4.0)	
55	33 (60.0)	9 (16.4)	8 (14.5)	3 (5.5)	2 (3.6)	29 (52.7)	4 (7.3)	12 (21.8)	2 (3.6)	8 (14.5)	41 (74.5)	5 (9.1)	4 (7.3)	
25	15 (60.0)	0 (0.0)	9 (36.0)	1 (4.0)	0 (0.0)	13 (52.0)	1 (4.0)	3 (12.0)	2 (8.0)	6 (24.0)	14 (56.0)	3 (12.0)	4 (16.0)	
4	3 (75.0)	0 (0.0)	1 (25.0)	0 (0.0)	0 (0.0)	2 (50.0)	1 (25.0)	0 (0.0)	0 (0.0)	1 (25.0)	3 (75.0)	0 (0.0)	0 (0.0)	
1	1 (100)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (100)	0 (0.0)	0 (0.0)	
			p = 0.165					p < 0.001					p < 0.001	
43	27 (62.8)	6 (14.0)	4 (9.3)	2 (4.7)	4 (9.3)	26 (60.5)	3 (7.0)	7 (16.3)	4 (9.3)	3 (7.0)	33 (76.7)	4 (9.3)	4 (9.3)	
478	308 (64.4)	88 (18.4)	67 (14.0)	8 (1.7)	7 (1.5)	67 (14.0)	43 (9.0)	212 (44.4)	93 (19.5)	63 (13.2)	399 (83.5)	47 (9.8)	19 (4.0)	
12	9 (75.0)	1 (8.3)	2 (16.7)	0 (0.0)	0 (0.0)	6 (50.0)	0 (0.0)	4 (33.3)	1 (8.3)	1 (8.3)	11 (91.7)	0 (0.0)	0 (0.0)	
15	8 (53.3)	3 (20.0)	4 (26.7)	0 (0.0)	0 (0.0)	8 (53.3)	2 (13.3)	2 (13.3)	1 (6.7)	2 (13.3)	14 (93.3)	0 (0.0)	1 (6.7)	
48	27 (56.3)	9 (18.8)	10 (20.8)	0 (0.0)	2 (4.2)	24 (50.0)	6 (12.5)	7 (14.6)	3 (6.3)	8 (16.7)	34 (70.8)	5 (10.4)	3 (6.3)	
15	11 (73.3)	0 (0.0)	3 (20.0)	1 (6.7)	0 (0.0)	11 (73.3)	0 (0.0)	2 (13.3)	1 (6.7)	1 (6.7)	10 (66.7)	3 (20.0)	2 (13.3)	
			p = 0.121					p < 0.001					p = 0.004	

Table 5: Association of population work status with depression, anxiety and stress scores (N=611).

nts	Depression					Anxiety					Stress			
	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)	Extremely severe n (%)	Normal n (%)	Mild n (%)	Moderate n (%)	Severe n (%)
	312 (64.5)	85 (17.6)	72 (14.9)	8 (1.7)	7 (1.4)	86 (17.8)	44 (9.1)	207 (42.8)	87 (18.0)	60 (12.4)	404 (83.5)	47 (9.7)	20 (4.1)	12 (2.5)
	78 (61.4)	22 (17.3)	18 (14.2)	3 (2.4)	6 (4.7)	56 (44.1)	10 (7.9)	24 (21.3)	16 (12.6)	18 14.2)	97 (76.4)	12 9.4)	9 (7.1)	7 (5.5)

p = 0.236 p < 0.001 p = 0.054

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