A Cross-Sectional Study to Estimate the Prevalence of Depressive Symptoms in Kashmiri Women Using Media Platforms

Aleena Meem[1], Rabbanie Tariq[1], Anjum Bashir Fazili[1*], Md Sabbir Ahmed[2], Rauf-ur Rashid Kaul[1]

[1]Department of Community Medicine, Sher-i-Kashmir Institute of Medical Sciences, Soura, India.
[2]Member, Royal College of Physicians, United Kingdom.

Corresponding Author: Dr. Anjum Bashir Fazli,

ABSTRACT

Globally, it is estimated that 280 million people suffer from depression that is approximately 2-6% of the total world population. Depression results from a complex interplay of social, psychological, and biological factors. More women are affected by depression than men due to various inevitable factors. The present study was conducted to determine the prevalence of symptoms in Kashmiri women indicating depression and to assess its epidemiology. The sample size required with a 95% Confidence Interval, and 50% prevalence, was estimated to be 384 and was drawn as per convenience sampling. The study tool included a self-administered questionnaire with three parts, two core parts i.e., the first including the socio-demographic and other relevant history, and the second being the Centre for Epidemiological Studies Depression scale (CES-D), while the third optional part including the Hurt Insult Threaten Scream (HITS) scale for screening the intimate partner violence. The results revealed that there are a staggering number of females who are suffering from symptoms of depression in Kashmir (64.7%), and the factors such as age, residence, satisfaction with work, time spent on social media, history of suicide in close ones, stressful events like a serious financial loss, or/and loss of a spouse or family member, and intimate partner violence were found to be statistically significant with presence of depressive symptoms. The need of the hour is hence to recognize that mental health problems among women in the valley are a threat because of their exponential increase and constant undermining.
Keywords: Depression, Intimate Partner Violence, Social-media, Kashmiri Women

INTRODUCTION

It is estimated that 280 million people suffer from depression globally which is about 2-6% of the total world population.[1] People in their day-to-day lives' feel mood fluctuations and some short-lived emotional responses to challenges, but depression is different from that. Symptoms of depression are persistent feelings of sadness and hopelessness and loss of interest in previously enjoyable activities. Other symptoms include poor concentration, feelings of excessive guilt or low self-worth, thoughts about suicide, sleep disturbances, changes in appetite or weight-gain or loss, and feeling tired or fatigue. Physical symptoms such as chronic pain or digestive issues can also occur. Symptoms must be present for at least two weeks, in order to label it as depression[2] At its worst, depression can lead to suicide, and over 700,000 people die due to suicide every year. Persistent depressive disorder often begins in childhood, adolescence, or early adulthood. The causative pathophysiology being a complex interplay of social, psychological, and biological factors. Women are at an increased risk of being depressed than

men.[3] The increased prevalence in women may be attributable to the depression-related illnesses specific in women, which may change the profile of ovarian hormones including premenstrual dysphoric disorder, postpartum depression and postmenopausal depression and anxiety.[4] Adverse life events such as loss of a job, bereavement, traumatic events, and intimate partner violence are considered to be the risk factors.[5]

Researchers seeking to understand the prevalence of depression in modern society have identified social media use as a major risk factor. An estimated 3.8 billion people worldwide are active users of at least one social media site.[6] Several studies have shown that social media is pervasive and has a negative impact on psychological well-being. It has been argued that social media can harm users by exposing them to negative stimuli such as unwholesome content, cyberbullying, unhealthy social comparison, and feelings of inferiority.[7] Many studies have also shown an association between intimate partner violence and depression. One study, which adjusted for the potentially confounding factors (race, age, socioeconomic status, childhood maltreatment, and pubertal status) reported small increases in mean Centre for Epidemiology Studies Depression scores at 5 years following psychological or physical IPVA (Intimate Partner Violence and Abuse).[8] Also, the inhabitants of Kashmir have come across decades of political uncertainty and people in the valley have been more prone to mental illness relatively.[9] Studies have shown that the prevalence of mental illness in the valley has increased phenomenally over the past eighteen years.[10] This study was conducted to determine the prevalence of symptoms of depression among Kashmiri women, assess the epidemiology and decipher the impact of social media use, stressful events and the presence of domestic violence on depression.

MATERIALS AND METHODS

This study was undertaken in Kashmiri women using media platforms, the sample size required with a 95% Confidence Interval, and 50% prevalence, was estimated to be 384 and was drawn as per convenience sampling. The participants were administered a self-administered questionnaire. Study tools include the CES Depression Scale[11] and HITS domestic violence screening tool[12]. The CES-Depression scale consists of 20 items, with five options for each item scored on a Likert scale with a score ranging from 0 to 3, with some items being reverse scored i.e., from 3 to 0. The questions can be answered by selecting any one of the following five options viz. 'Rarely or none of the time (less than 1 day)', 'Some or a little of the time (1-2 days)', 'Occasionally or a moderate amount of time (3-4 days)', and 'Most or all of the time (5-7 days)', in the previous week. The range of score is from 0 to 60, with the cut-off for impaired CES-D score being 20.[13] Those with scores greater than 20 were categorised as having symptoms of depression. The HITS four-item questionnaire asks respondents how often their intimate partner physically Hurt, Insulted, Threatened with harm, and Screamed at them. These four items make up the acronym HITS. Each question is answered on a 5-point scale: 1=never, 2=rarely, 3=sometimes, 4=fairly often, 5=frequently. The scores range from 4 to a maximum of 20, with a score of 10 or more indicating a positive test.[12] Ethical permission was granted by the Institutional Ethics Committee (IEC), Sher-i-Kashmir Institute of Medical Sciences. Data were analysed using SPSS software to study the various frequency distributions and the Chi-square test/ Fisher's Exact test was used for assessing the associations.

RESULT

Table 1: Frequency distribution according to various socio-demographic variables

Variable	Category	Frequency (n)	Percentage (%)
Age	<19 years	12	3.1
	>50 years	12	3.1
	19-29	182	47.4
	30-39	162	42.2
	39-49	16	4.2
Residence	Rural area	28	7.3
	Urban area	356	92.7
Religion	Christianity	4	1.0
	Islam	380	99.0
Marital Status	Widowed/Separated	13	3.4
	Married	141	36.7
	Engaged	12	3.1
	Single	218	56.8
Education Status	Up to High school	8	2.1
	Higher Secondary	52	13.5
	Graduate	89	23.2
	Post Graduate	235	61.2
Type of Family	Joint	113	29.4
	Nuclear	271	70.6
Occupation	Professional	205	53.4
	Semi-professional	33	8.6
	Skilled worker	45	11.7
	Business	12	3.1
	Unemployed	85	22.1
Satisfaction with work (n=282)	Yes	136	51.7
	No	146	48.3

As depicted in Table 1, out of the total of 384 females in our study, the majority (47.4%, n =182) were among the age group of 19-29 years of age followed by 42.2%(n=162) in the 30-39 years age-group. The majority of respondents were from the urban area (92.7%, n = 356), with 70.6%(n=271) living among nuclear families, 99%(n=380) identified themselves as following Islam, and 56.8%(n=218) were single, while 36.7%(n=141) were married. The observation of the education status of the study population revealed that 61.2%(n=235) had been educated up to the level of post-graduation, 23.2%(n=89) were educated up to the level of graduation while 13.5%(n=52), and 2%(n=8) were educated up to higher secondary and high students and almost half of the study population were professionals (53.4%), 11.7% (45) were skilled workers, 8.6% were semi-professionals while 3% were running businesses. Of the total of 384, 282 of those who responded to the question regarding their satisfaction with work, 51.7%(n=146) responded "No" and 48.3%(n=136) responded "Yes".

Table 2: Frequency distribution according to social media usage, stressful events, comorbidities and history of suicide in close ones.

Variable	Category	Frequency (n)	Percentage (%)

Time spent on social media per day (cumulative)	Less than 2 hours	53	13.8
	2-4 hours	176	45.8
	4-8 hours	135	35.2
	More than 8 hours	20	5.2
Frequency of posting on social media in the previous week	Never	184	47.9
	1-4 posts	183	47.7
	>4 posts	14	3.6
Stressful events in the previous year	Absent	238	62.0
	Present	146	38.0
Stressful events in the previous year (n= 146)	A serious financial downfall	33	22.6
	A serious illness or surgery	16	10.9
	Divorce	5	3.4
	Loss of a job	16	10.0
	Loss of a spouse, family member, or loved one	52	35.6
	Combination of two or more of the above stressful events	24	16.4
Co-morbidities and other conditions	None	233	60.7
	Depression	87	22.7
	Bipolar Disorder	5	1.3
	Diabetes	33	8.6
	Suicide Attempt	16	4.2
	Heart Attack	4	1.0
	Cancer	4	1.0
History of suicide in close ones	No	376	97.9
	Yes	8	2.1

In Table 2, observations regarding the variables related to social media usage revealed that maximum number of study participants (45.8%, n=176) responded that their cumulative time spent using any social media was 2-4 hours per day, followed by 35.2% (n=135) spent 4-8 hours per day on social media, 13.8% (n=53) spent less than 2 hours per day and only 5.2% (n=20) spent more than 8 hours on the social media per day. On enquiring regarding the frequency of posting on social media in the week before, 47.9% (n=184) of the respondents responded as 'Never', 47.7% (n=183) responded with '1-4 posts', while 3.6%(n=14) responded as 'more than 4 posts.' The majority (62%, n=238) of study participants reported not experiencing stressful events in the previous year, while 38% (n=146) reported experiencing stressful events. Among 146 of those who experienced stressful events, 35.6% (n=52) reported the stressful event to be 'Loss of a spouse, family member, or loved one.', 22.6% (n=33) reported 'A serious financial downfall', 10% each had either a 'Serious illness or injury' or a 'loss of a job', 3.4% had a divorce and 16.4% had a combination of two or more of these stressful events. 60.7% (n=233) did not have any co-morbidity, 22.7% (n=87) reported having depression, 8.6% (33) had

diabetes, 4.2% (16) had attempted suicide, and 1.3% (5) had bipolar disorder. 2.1% (8) had a positive history of suicide in their close ones.

Figure 1 : Distribution of study population as per their CES-D score.
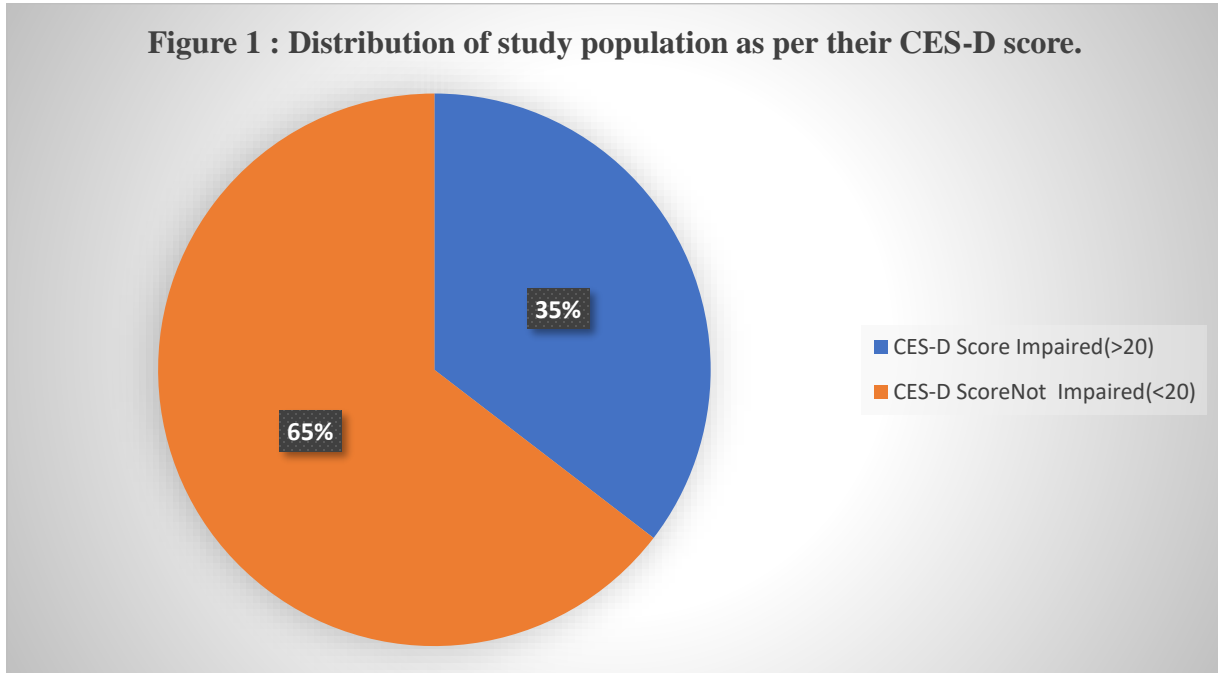
The distribution of the study population as per the scores in the Centre for Epidemiological Studies- Depression scale is depicted in Figure 1, where the majority (64.6%, n= 248) of the study participants have an impaired score (>20), and 35.4% (n= 136) had a score below 20. Out of the 57% (n= 219) who responded to the optional HITS screening tool, 5% (n= 12) had a positive test, i.e., score more than or equal to 10, while 95% (n= 207) had a negative test (score less than 10) [Figure 2]. Also, the correlation between the aggregate CES-D score and the HITS score was statistically significant.

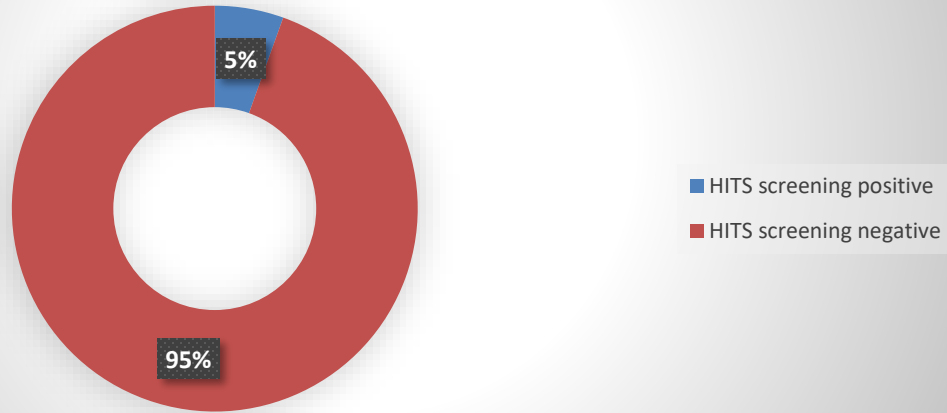Figure 2: Distribution of study population as per HITS screening test.

Table 3: Association of impaired CES-D score (indicating depression) with various socio-demographic variables.

| Variable | Categories | CES-D | | Total | p-value |
		Not Impaired n(%)	Impaired n(%)	Frequency (Percentage) n(%)	
Age	<19	8(66.7%)	4(33.3%)	12(100%)	**0.04**
	19-29	69(37.9%)	113(62.1%)	182(100%)	
	30-39	53(32.7%)	109(67.3%)	162(100%)	
	40-49	2(12.5%)	14(87.5%)	16(100%)	
	>50	4(33.3%)	8(66.7%)	12(100%)	
Residence	Rural	4(14.3%)	24(85.7%)	28(100%)	**0.01**
	Urban	132(37.1%)	224(62.9%)	356(100%)	
Type of family	Nuclear	100(96.0%)	171(63.1%)	271(100%)	0.34
	Joint	36(31.9%)	77(68.1%)	113(100%)	
Religion	Christianity	2(50%)	2(50%)	4(100%)	0.61
	Islam	134(35.3%)	246(64.7%)	380(100%)	
Marital Status	Widowed/ Separated	4(30.8%)	9(69.2%)	13(100%)	0.97
	Married	49(34.8%)	92(65.2%)	141(100%)	
	Engaged	4(33.2%)	8(66.8%)	12(100%)	
	Single	79(36.2%)	139(63.8%)	218(100%)	
Occupation	Professional	80(39%)	125(61%)	205(100%)	0.24
	Semi-professional	6(81.2%)	27(81.8%)	33(100%)	
	Skilled	14(31.1%)	31(68.9%)	45(100%)	

	worker				
	Business	4(33.3%)	8(66.7%)	12(100%)	
	Unemployed	30(35.3%)	55(64.7%)	85(100%)	
Satisfaction with work (n= 282)	Yes	59(43.3%)	77(56.6%)	136(100%)	**0.04**
	No	43(29.4%)	103(70.5%)	146(100%)	
Level of education	Up to High School	6(75%)	2(25%)	8(100%)	0.08
	Higher Secondary	18(34.6%)	34(65.4%)	52(100%)	
	Graduate	27(30.3%)	62(69.7%)	89(100%)	
	Post Graduate	85(36.2%)	150(63.8%)	235(100%)	

The categorization of the total score in the CES-D scale was done as per the cut-off of 20 out of the aggregate score of 60, the values above which signify an impaired score, which indicates the presence of symptoms of depression. The association of the aggregate CES-D score with other variables was determined by using the Chi-square test, although Fisher's Exact was used where the Chi-square was not applicable. The association between various socio-demographic factors and the categories of the CES-D scale is depicted in Table 3, where age (p=0.04), residence(p=0.01) and satisfaction with work(p=0.04) were having statistically significant associations with depression. Whereas, type of family, religion, marital status, occupation, and level of education were not found to have a statistically significant association with depression.

A statistically significant association was found between time spent on social media per day (cumulative) (p= 0.00), co-morbid conditions (p=0.00), history of suicide in close ones (p=0.04), and stressful events in the previous year (p=0.00) whereas, frequency of posting in any social media in the previous week was not found to have any statistically significant association with depression.

Table 4: Association of impaired CES-D (indicating depression) with social media usage, stressful events, co-morbidities, and history of suicide in close ones.

Variable	Categories	CES-D		Frequency (Percentage) n(%)	p-value
		Not Impaired n(%)	Impaired n(%)		
Time spent on social media per day (cumulative)	Less than 2 hours	32(60.4%)	21 (39.6%)	53(100%)	**0.00**
	2-4 hours	56(31.8%)	120(68.2%)	176(100%)	
	4-8 hours	44(20%)	91(80%)	135(100%)	
	More than 8 hours	4(32.1%)	16(67.9%)	20(100%)	
Frequency of posting on any social media in the previous week	Never	69(65.2%)	115(62.5%)	184(100%)	0.29
	1-4 posts	60(32.8%)	123(67.2%)	183(100%)	
	> 4 posts	7(50%)	7(50%)	14(100%)	

Co-morbid conditions	None	88(37.8%)	145(62.2%)	233(100%)	**0.00**
	Depression	18(20.7%)	69(79.3%)	87(100%)	
	Bipolar Disorder	2(40%)	3(60%)	5(100%)	
	Diabetes	16(48.5%)	17(51.5%)	33(100%)	
	Suicide Attempt	10(62.5%)	6(37.5%)	16(100%)	
	Heart Attack	0(0%)	4(100%)	4(100%)	
	Cancer	2(50%)	2(50%)	4(100%)	
History of suicide in close ones	Yes	6(75%)	2(25%)	8(100%)	**0.04**
	No	130(34.6%)	246(65.4%)	376(100%)	
Stressful events in the previous year	A serious financial downfall	4(12.1%)	29(87.9%)	33(100%)	**0.00**
	A serious illness or surgery	3(18.8%)	13(81.2%)	16(100%)	
	Divorce	2(40%)	3(60%)	5(100%)	
	Loss of a job	8(50%)	8(50%)	16(100%)	
	Loss of a spouse, family member, or loved one	26(50%)	26(50%)	52(100%)	
	Combination of two or more than two of above stressful events	6(25%)	18(75%)	24(100%)	

DISCUSSION

In our study, we found that 64.7% (n=248) of our study population had impaired CES-D scores indicating a high prevalence of depressive symptoms. The national prevalence of depression is 4.5%[1]. Psychosocial events such as role stress, victimization, sex-specific socialization, internalization, coping style, disadvantaged social status, and perceived stigma of mental illness, more in females, have all been considered to contribute to the increased vulnerability of women to depression.[14] The analysis of the data revealed that age was found to have a statistically significant association with depressive symptoms where the age group below 19 years of age had the majority of study participants (66%) in the 'Not impaired' category of CES-D score whereas, the age group of 40-49 had a majority (66%) in the 'Impaired' category suggesting the higher presence of symptoms of depression in this age group. This corresponds to the general increasing trend in the prevalence of depression with increasing age. In a study by Amin S. et al undertaken in Kashmir in 2009, women were found to have a higher prevalence of depression in all age groups than males and it is highest in the age group 26 to 35 years (68.66%).[15]

The majority of the study population resided in urban areas, but impaired CES-D score was found mostly in those residing in rural areas (85.7%), and the finding was statistically significant. The findings are in line with those of Probst J. et al, who in their study titled, "Rural-urban differences in depression prevalence: implications for family medicine" conducted in the US reported that the unadjusted prevalence was significantly higher among rural than among urban populations (6.1% versus 5.2%, P=.0171)[16] rural area was associated with a higher prevalence of depression compared to urban area. In our study, the level of education was not found to be statistically associated with depression, however, in a study by G. Chadni et al, conducted in India in 2020, they reported that the illiterates are at a higher risk of developing depression.[17] Type of family and religion were not found to be statistically associated with depression in our study, however, in a study conducted by Gupta Swapnil et al, the patients with depression, hopelessness and suicidal intent correlated negatively with the level of religiosity[18], and the nuclear family system was also found to be an independent predictor of depression in a study by Taqui M A et al.[19] The marital status was not found to have statistically significant association with depression in our study. However, in a study by Pan L. et al. (2022) in China, they reported that the direct effect of marital status on depressive symptoms was statistically significant ($p < 0.001$).[20] In our study, higher scores in favour of depression were found in 65% of the married females, however, Tawar S et al (2014) in their study reported that mental morbidity in married women from Mumbai was found to be 27.2% using a self-reported questionnaire from WHO, and that they had higher reporting of somatic symptoms than emotional symptoms.[21] No statistically significant association was found between occupation and the presence of symptoms of depression. Similar to our findings, G. Chadni et al in their study conducted in 2020, titled, "Prevalence and correlates of depression in a rural adult population in Northwest India." reported that there was no significant association between employment status and depression (P value > 0.05).[17]

The study found that satisfaction with work was statistically significant with depression, with impaired scores in 70.5% study population who were not satisfied with work, while 56.6% had impaired scores among those who reported being satisfied with work. Similar to our findings, Aiden A.P. Simard et al in their study reported that job satisfaction had a significant positive association with meaning in life ($p < 0.001$) and that meaning in life, in turn, had a significant negative association with symptoms of anxiety/depression ($p < 0.001$).[22]

Time spent on social media showed a significant statistical significance with depression, as 39.6% of those spending less than 2 hours per day on social media had depressive symptoms, while 80% of those who spent 4-8 hours on social media had depressive symptoms. These findings are in line with many studies conducted on the topic. A study by Liu M. et al. (2022) found that there was a linear dose-response association between time spent on social media and risk of depression, the risk of depression increased by 13% (OR = 1.13, 95%CI: 1.09 to 1.17, $p < 0.001$) for each hour increase in social media use in adolescents.[23] Another study by M. Mehmet et al (2020) revealed that depression and time spent on Facebook by adolescents are positively correlated[24]. However, in our study, we found that the frequency of posting on any social media did not have any statistical significance with depression similar to findings in a systematic review by Karim F et al. (2020) who in their study reported that several studies have suggested no relationship between social media usage and depression.[25]

The association of co-morbid conditions was found to be statistically significant with depression, where the presence of depression was responsible for this significance (adjusted residuals -3.3, +3.3 for CES-D score<20 and >20, respectively). 79.3% of those with depression as their co-

morbidity had a CES-D score >20, indicating the presence of symptoms of depression, which further strengthens the evidence for the scale. Although an inverse significance is found between the history of suicide attempts and depression, it might be because of a very less sample of those who attempted suicide(n=16), or due to the history, this section of the study population might have sought/were seeking treatment for depression, resulting in the low score in the CES-D scale. However, the relationship between depression and suicide attempt are well established and studies like Nadine M. et al (2020) suggest that those who are class 3 depressed are at a higher risk for a suicide attempt.[26] Another observation in our study was that those with a 'history of suicide in close ones' had statistically significant association with the presence of depressive symptoms. 65.4% of those with a history of suicide in close ones had an impaired CES-D score while 25% of those who had no history of suicide in close ones had an impaired CES-D score, which implies that those with a history of suicide in close ones were found to have more symptoms of depression. In a study by Alexander McGirr et al., they found that those with history of suicide in relatives were significantly more likely than control participants to have had a depressive disorder in the past, and had significant deficits / alterations in their neurocognitive function.[27] The presence of stressful events in the previous year had a statistically significant association with depressive symptoms, as a majority of those with a 'serious financial downfall' (87.9%) or a combination of two or more stressful events (75%) had an impaired CES-D score. This was in accordance with the study by Kiely K. et al (2015), they reported that the respondents who reported deprivation and cash-flow problems had a greater risk of mental health problems than those who did not.[28]

Although the prevalence of intimate partner violence is only 5% in our study, it can be attributed to the fact that mostly the data was generated from the class of society, where women are empowered to an extent more than the general population, due to their education status or socio-economic status. This presence of intimate partner violence screened through the HITS questionnaire in our study, though less, was found to have a statistically significant correlation with depression screened through the CES-D scale. (Pearson correlation = 0.213, p= 0.001) These results were in accordance with those of the study conducted by Wong et al who in their study reported chronic psychological abuse to be significantly associated with higher levels of depression.[29]

CONCLUSION

There are a staggering number of females who are suffering from depressive symptoms in Kashmir (64.7%), and the factors such as age, residence, satisfaction with work, time spent on social media, history of suicide in close ones, stressful events like a serious financial loss, or/ and loss of a spouse or family member, and intimate partner violence were found to be statistically significant with the presence of depressive symptoms. This calls for the implementation of mental health awareness programmes which would aid in the reduction of stigma associated with seeking mental health, and the provision of specialist mental health care at every level of the healthcare delivery system. The association of social media usage and subsequent addiction with depression calls for a proactive approach to behavioural therapy and counselling in this regard. The need of the hour is to recognise that mental health problems are a threat because of exponential increase and their constant undermining.

REFERENCES

1. Depression Rates by Country 2023 [Internet]. [cited 2023 Jul 4]. Available from: https://worldpopulationreview.com/country-rankings/depression-rates-by-country
2. Psycom Pro: A Psychiatry Resource for Clinicians [Internet]. [cited 2023 Jul 7]. Available from: https://pro.psycom.net/
3. Depressive disorder (depression) [Internet]. [cited 2023 Jul 4]. Available from: https://www.who.int/news-room/fact-sheets/detail/depression
4. Albert PR. Why is depression more prevalent in women? J Psychiatry Neurosci [Internet]. 2015 [cited 2023 Jul 4];40(4):219. Available from: www.statcan.gc.ca/pub/82-003-x/2014006
5. NIMH » Depression [Internet]. [cited 2023 Jul 4]. Available from: https://www.nimh.nih.gov/health/topics/depression
6. Ivie EJ, Pettitt A, Moses LJ, Allen NB. A meta-analysis of the association between adolescent social media use and depressive symptoms. J Affect Disord [Internet]. 2020 Oct 1 [cited 2023 Jul 9];275:165–74. Available from: https://pubmed.ncbi.nlm.nih.gov/32734903/
7. Vogel EA, Rose JP, Roberts LR, Eckles K. Social comparison, social media, and self-esteem. Psychol Pop Media Cult. 2014 Oct;3(4):206–22.
8. Exner-Cortens D, Eckenrode J, Rothman E. Longitudinal associations between teen dating violence victimization and adverse health outcomes. Pediatrics. 2013 Jan;131(1):71–8.
9. Housen T, Lenglet A, Shah S, Sha H, Ara S, Pintaldi G, et al. Trauma in the Kashmir Valley and the mediating effect of stressors of daily life on symptoms of posttraumatic stress disorder, depression and anxiety. Confl Health [Internet]. 2019 [cited 2023 Jul 4];13(1):58. Available from: http://www.ncbi.nlm.nih.gov/pubmed/31889997
10. Housen T, Lenglet A, Ariti C, Shah S, Shah H, Ara S, et al. Prevalence of anxiety, depression and post-traumatic stress disorder in the Kashmir Valley. BMJ Glob Health [Internet]. 2017 [cited 2023 Jul 4];2(4). Available from: https://pubmed.ncbi.nlm.nih.gov/29082026/
11. Center for Epidemiological Studies Depression (CESD) [Internet]. [cited 2023 Jul 4]. Available from: https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/depression-scale
12. Iverson KM, King MW, Resick PA, Gerber MR, Kimerling R, Vogt D. Clinical utility of an intimate partner violence screening tool for female VHA patients. J Gen Intern Med. 2013 Oct;28(10):1288–93.
13. Vilagut G, Forero CG, Barbaglia G, Alonso J. Screening for Depression in the General Population with the Center for Epidemiologic Studies Depression (CES-D): A Systematic Review with Meta-Analysis. PLoS One [Internet]. 2016 May 1 [cited 2023 Jul 4];11(5):e0155431. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155431
14. Kulesza M, Raguram R, psychiatry DRA journal of, 2014 undefined. Perceived mental health related stigma, gender, and depressive symptom severity in a psychiatric facility in South India. Elsevier [Internet]. [cited 2023 Jul 4]; Available from: https://www.sciencedirect.com/science/article/pii/S1876201814000781

15. Amin S. Life in conflict: Characteristics of Depression in Kashmir. Int J Health Sci (Qassim). 2009;3(2).

16. Probst JC, Laditka SB, Moore CG, Harun N, Powell MP, Baxley EG. Rural-urban differences in depression prevalence: implications for family medicine. Fam Med [Internet]. 2006 [cited 2023 Jul 4];38(9):653–60. Available from: https://pubmed.ncbi.nlm.nih.gov/17009190/

17. G. Chadni AMGKR, ANLBSP, KRMMRKS. Prevalence and correlates of depression in rural adult population in northwest India. J Family Med Prim Care. 2020;9(1).

18. Gupta S, Avasthi A, Kumar S. Relationship between religiosity and psychopathology in patients with depression. Indian J Psychiatry [Internet]. 2011 Oct [cited 2023 Jul 4];53(4):330–5. Available from: https://pubmed.ncbi.nlm.nih.gov/22303042/

19. Taqui AM, Itrat A, Qidwai W, Qadri Z. Depression in the elderly: Does family system play a role? A cross-sectional study. BMC Psychiatry. 2007 Dec 25;7(1):57.

20. Pan L, Li L, Peng H, Fan L, Liao J, Wang M, et al. Association of depressive symptoms with marital status among the middle-aged and elderly in Rural China-Serial mediating effects of sleep time, pain and life satisfaction. J Affect Disord [Internet]. 2022 [cited 2023 Jul 5];303:52–7. Available from: https://doi.org/10.1016/j.jad.2022.01.111

21. Tawar S, Bhatia S, community MII journal of, 2014 undefined. Mental health, are we at risk? ncbi.nlm.nih.gov [Internet]. [cited 2023 Jul 4]; Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3968582/

22. 22. Simard AAP, Seidler ZE, Oliffe JL, Rice SM, Kealy D, Walther A, et al. Job Satisfaction and Psychological Distress among Help-Seeking Men: Does Meaning in Life Play a Role? Behavioral Sciences. 2022 Feb 22;12(3):58.

23. Liu M, Kamper-Demarco KE, Zhang J, Xiao J, Dong D, Xue P. Time Spent on Social Media and Risk of Depression in Adolescents: A Dose–Response Meta-Analysis. Int J Environ Res Public Health [Internet]. 2022 May 1 [cited 2023 Jul 5];19(9). Available from: /pmc/articles/PMC9103874/

24. Mehmet M, Roberts R, Nayeem T. Using digital and social media for health promotion: A social marketing approach for addressing co-morbid physical and mental health. Australian Journal of Rural Health. 2020 Apr 1;28(2):149–58.

25. Karim F, Oyewande AA, Abdalla LF, Chaudhry Ehsanullah R, Khan S. Social Media Use and Its Connection to Mental Health: A Systematic Review. 2020;

26. Melhem NM, Porta G, Oquendo MA, Zelazny J, Keilp JG, Iyengar S, et al. Severity and Variability of Depression Symptoms Predicting Suicide Attempt in High-Risk Individuals. JAMA Psychiatry. 2019 Jun 1;76(6):603.

27. McGirr A, Jollant F, Turecki G. Neurocognitive alterations in first degree relatives of suicide completers. J Affect Disord. 2013 Feb;145(2):264–9.

28. Kiely KM, Leach LS, Olesen SC, Butterworth P. How financial hardship is associated with the onset of mental health problems over time. Soc Psychiatry Psychiatr Epidemiol. 2015 Jun 17;50(6):909–18.

29. Wong JYH, Tiwari A, Fong DYT, Humphreys J, Bullock L. Depression Among Women Experiencing Intimate Partner Violence in a Chinese Community. Nurs Res. 2011 Jan;60(1):58–65.