

Assessment of Prevalence and Correlates of Depression in a Tertiary Care Teaching Hospital

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ABSTRACT

Objective: Patients visiting the hospital are at a greater risk of developing depression owing to different correlates such as health issues, stress etc; which is mostly under-diagnosed or under-treated. Our primary goal is to determine the depression severity, evaluate its prevalence and correlates.

Methodology: This is a cross-sectional study, that was conducted over a period of six months on patients visiting the tertiary care teaching hospital. Data were gathered from 1380 subjects using DSM-V, Kuppuswamy SES scale, PSLE Scale.

Results: A total of 1380 subjects were included, of all the subjects 28.15% had slight depression, 34.56% had mild, 30.54% moderate and 6.74% had severe depression respectively. The prevalence of depression among females [51.8%] was greater than males. Depression was significantly observed in rural residents, subjects belonging to lower middle class and those with health issues.

Conclusion: The prevalence of depression among the study population was found to be high. Out of 1380 subjects, 920 (66.67%) of them were found to be with depression. Patients with Neurological, Reproductive and Psychiatric disorders were found to have the major contribution for Depression. The novel correlate of depression in our study is that the subjects who experience 1-15 negative/stressful life of events in the past 6 months were found to have significant association with depression. In the comprehensive analysis education level, locality, monthly income, underlying disorders and stressful life events accounted for a significant amount of the variance in depression scores.

Keywords DSM-V; Diagnostic manual of statistical and mental disorders-V; PSLES-Presumptive Stressful Life events Scale; Kuppuswamy SES ; Kuppuswamy socio-economic status scale

INTRODUCTION

Depression is a common and serious medical illness that negatively affects how a person feel, think and behave causing persistent feelings of sadness and loss of interest in previously enjoyed activities. Depression can lead to a variety of emotional and physical problems. There's no single cause of depression, according to research. It can be the result of brain chemistry, hormones, and genetics as discussed above, and even the life

experiences and physical health. The total estimated number of people living with depression increased by 18.4%. This reflects the overall growth of the global population, as well as a proportionate increase in the age groups at which depression is more prevalent. It is essential to note that depression has multi-factorial origin [1]. It can lead from brain chemistry, hormones, genetics, socio-demographic variables behavioural variables/developmental factors even familial history of depression and physical health experiences and any stressful life events.

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Biochemistry, differences in certain brain chemicals lead to depression, i.e., impairment of core mono-aminergic function. Genetics, depression can run in families. Socio-demographic variables, includes age, gender, marital status, locality, education and income [2]. Epidemiological studies show that middle aged or enhanced age, female sex, marital status like separation or divorce rural area residents are associated with greater levels of depression. Individuals with reduced levels of education or illiterates are more susceptible to depression than the educated group. Depression is associated with poverty in a vicious cycle. Low-and middle-income households are the most affected ones. Maltreatment, poor early home environment, negligence, low self esteem are some of the developmental factors that are associated with depression. Social support plays a significant regulating effect on relationship between stress and depression. The impact of stress on depression was much smaller in high social support group when compared to low social support group [3]. Generally individuals with a positive family history of depression were found to be 2.5 times more likely to have depression. People with chronic diseases are more likely to have depression than those without any physical illness. Depression may make the chronic disease worse and affects its prognosis. Individuals with co-morbid conditions like cardiovascular diseases, neurological disorders renal disorders, respiratory disorders, bone related disorders, reproductive disorders, other psychiatric disorders and dermatological issues are more susceptible to depression. In general, people with chronic smoking habits, chronic alcohol consumption also have an increased risk of developing depression this is due to development of other chronic medical-issues. Stress may further cause negative emotions which may lead to depression. If the stress is continued or prolonged, it can leave adverse effects on body's immune, cardiovascular, neuro-endocrine and central nervous systems [4]. When chronic stress goes untreated it can result into serious disabilities like insomnia, weakened immune system, sometimes may result psychiatric issues like depression. The most commonly observed and upper most stressful life events according to Holmes and Rahe stress scale are: death of spouse, divorce, marriage separation, imprisonment, death of close family member, personal injury/illness. Death may lead to a financial crisis if the spouse who died was the main source of income. The loss of a spouse may require that the surviving partner start working, relocate and/or learn to parent alone. This keeps a hard impact on every aspect of life like social, emotional and physical levels. The major and most common complication of depression is suicide. Depression [5] if life not a diagnosed in time or left untreated may lead to severe complications. Recognizing depression at its early stages is very important to avoid further complications. The objective is to increase the awareness of early diagnosis of depression by assessing its prevalence and evaluating the correlates that are contributing to depression [6].

Tools used for the study include the following:

- Adults
- Kuppuswamy socioeconomic scale
- Presumptive Stressful Life events Scale

The DSM-5 Level 2—Depression—Adult measure is the 8-item PROMIS Depression Short Form that assesses the pure domain of depression in individuals with age of 18 and older. The measure is completed by the individual prior to a visit with the clinician. If the individual receiving care is of impaired capacity and incompetent to complete the form (an individual with dementia), a knowledgeable informant may complete the measure as done in the DSM-5 Field Trials. Each item asks the individual receiving care (or informant) to rate the severity of the individual's depression during the past 7 days. For urban areas, rural areas and semi-urban areas, Kuppuswamy socioeconomic scale is the most broadly used socioeconomic scale all over Republic of India [7]. Socio-economic status (SES) could be an estimate of economic and sociological conditions of an individual's work proficiency and of a person's or family's economic and social position in account to different community members. Presumptive stressful life events scale is a questionnaire that carries 51 stressors. This scale is simple to administer to literate and illiterate subjects. A host of studies have suggested a positive relationship between stressful life events and subsequent illness [8].

MATERIALS and METHODS

It was a Cross-sectional study conducted at in and outpatient departments of Siddhartha Institute. The protocol for the proposed study was submitted to the Institutional Ethics Committee (IEC) (Dr. PSIMS and RF-IEC Human Studies) and received the approval with number UG/360/18.

Inclusion criteria

- Patients aged >18 years of either gender
- Patients with multiple co-morbidities
- Patients with depression from in and out Patient Departments

Exclusion criteria

- Patients aged >60 years
- Pregnant women and post partum women
- Patients who are not willing to participate

Sources of data

All the necessary and relevant data was obtained from

- Patient/caretaker interview
- Patients individual case sheets
- Other relevant data sources

The total patients (n=1380) were divided into non-depressive (control, n=460) and depressive groups (n=920) for calculation of odds ratios. A survey form/data collection sheet for various life style factors, socio-demographic factors, co-morbid conditions and clinical characteristics for [9]. depression number designed. Data was summarized by number and percentage or Mean \pm SD. Unpaired 't'-test was used to compare groups for continuous variables and χ^2 test was used to compare proportions between the two groups. The association between variables for the development of Depression was evaluated by calculating the odds ratio (OR) at 95% CI. p-value < 0.05 was considered significant [10].

RESULTS AND DISCUSSION

Variable	Patients with Depression (N=920)%
Gender	
Male	443 (48.152)
Female	477 (51.847)
Age (Years)	
Mean \pm SD	39.43 \pm 11.79
19-25	137 (14.891)
26-32	169 (18.369)
33-39	161 (17.5)
40-46	163 (17.717)
47-52	140 (15.217)
53-60	150 (16.304)

Table 1: Clinical characteristics of patients with depression.

A total of 1380 subjects were included in the study, in which 920 subjects were with depression and 460 subjects were without depression. The clinical characteristics of depression were presented in Table 1. Out of 920 subjects depression was significantly higher in females (51.85%) than in males (48.15%). The mean \pm SD of age was 39.429 \pm 11.786 years in depression. Depression was significantly higher in the age groups of 26-32 years (18.369%) followed by 33-39 years (17.5%) and 40-46 years (17.717%) respectively [11]. In the stages of depression, Mild was (34.56%) and Moderate (30.54%) depression were most predominantly observed in the subjects with depression according to DSM-V Promis emotional distress Depression classification [12]. Depression was predominantly observed in the subjects with Multiple co-morbidities (35.10%), Cardiovascular diseases (10.2%), followed by GI diseases (7.065%), Psychiatric problems (6.84%) and CNS problem (6.52%) respectively [13-16].

CONCLUSION

The prevalence of depression among the study population was found to be high. Out of 1380 subjects, 920[66.67%] of them were found to have depression. Many studies reported that age, gender, residing areas, socio-economic status, chronic diseases are predictors for developing depression. The present study also revealed that certain age groups, female gender, rural area residents, subjects with intermediate/diploma, high school and middle school certificates also belonging to lower-middle economic status and subjects with chronic diseases were observed to have significant association with depression. In the comprehensive analysis education level, locality, monthly

income, underlying disorders and stressful life events accounted for a significant amount of the variance in depression scores. The novel correlate of depression in our study that is subjects who experience negative/stressful life events in the past 6 months score were found to have significant association with the disorder depression. The present study revealed that subjects who experience 1-5/6-10*/11-15 stressful life events over the last 6 months were observed to have depression.

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