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An Assessment study on depression among late adolescents belonging to literate group in rural area of Bareilly district

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Abstract

Introduction: Adolescence is a crucial phase in life and the presence of conditions like depression at this stage of life is a matter of concern. Depression in this population has been shown to be associated with increased risk of suicidal behavior, homicidal ideation, tobacco use and other substance abuse into adulthood thus an attempt has been made for assessing the prevalence of depression in late adolescent in the rural area of the Bareilly district among those who belong to the literate group.

Objectives: To screen depression among late adolescents belonging to literate group in rural area of Bareilly District.

Material and methods: A cross-sectional study was conducted in Bareilly district, using multistage sampling technique. Pre-tested and pre-validated questionnaire is used for data collection that was compiled and analysed using Epi-Info software v7.2.

Result: In this study, Prevalence of Depression among adolescents is 52% and on linear regression analysis, a number of predictors had analyzed for significant association with depression in the adolescents so, the analysis revealed that Education is significantly associated with depression (P<0.05).

Conclusion: Depression is highly prevalent among adolescence in rural area. Our findings point to the importance of broad screening of this vulnerable population.

Keywords: Depression, Late adolescents, Beck Inventory Method.

1. Introduction

Adolescence is a crucial phase in life and the presence of conditions like depression at this stage of life is a matter of concern. Depression in this population has been shown to be associated with increased risk of suicidal behavior, homicidal ideation, tobacco use and other substance abuse into adulthood. [1]

It has been noted that the majority of suicides in India are by those below the age of 30 years and also that around 90% of those who die by suicide have a mental disorder. [2]

Epidemiological assessment of depression during adolescence has been a challenging issue ever since the first studies in the late 60's and early 70's [3].

When reviewing the results of epidemiological studies into depression in children and adolescents, Angold [4,5] concluded that the reasons behind the differences in prevalence indexes should be looked for in the various therapeutic approaches to the clinical problem of depression and, in turn, in the diagnostic tools used, as well as the source of information.

Even today the problem has still not been solved. It seems that even the studies focused on identification of major depression performed with diagnostic tools developed specifically for this reason bring varying results, ranging from 1% to 16% [6-11] thus an attempt has been made for assessing the prevalence of depression in late adolescent in the rural area of the Bareilly district among those who belong to the literate group with an Objectives To screen depression among late adolescents belonging to literate group in rural area of Bareilly District.

2. Material and methods

A cross sectional study was conducted during August 2017 - September 2017 on a representative sample of Rural area population of Bareilly District with fulfilling all criteria like Late Adolescent of 15-19 years of age whose Parents gave consent to allow their children to participate in the study, Residing in the study area since past 6 month. Study participant should be literate and excluded those study subjects whose age was below 15 years and beyond 19 years, whose Parents did not give consent to participate in the study and was not residing in the study area for less than 6 months or more.

The target population of the study consisted of approximately 10,000 adolescents resident in the rural area in 2017. To represent the population, an idle sample was estimated using the following equation: $\{[z^2 \text{ x } p \ (1-p)]\}/\text{€}^2$, p is the estimated prevalence of outcome (p=20%) [12] With allowable error of 20% of P, Thus the estimated sample had 400 participants.

The Area which will be located under a Gram Panchayat was considered as Rural Area in District Bareilly. To perform the study, multi stage random sampling method was used for all study units until the required sample size was attained. There was total 6 Tehsil. We took 10% of Tehsil in total 6 Tehsil. It came in round figure, 1 Tehsil, Then in that 1 Tehsil, We used Simple Random Sampling to select Blocks. (There was 2 Blocks in each Tehsil). So we took 10% of Blocks in 2 Blocks then It came in Round Figure, it came 1 Block. So, From 1 Block, we selected villages by using Simple Random Sampling, In 1 Blocks there was total 64 Villages then we took 10% of 64 Villages. It came in Round Figure, There was 7 Villages. Then, Further We selected household as per random table. From each household 1 sample unit was selected till the sample size is attained. If more than one sample was present in one household then one sample was selected by lottery method & If no, sample house is locked or individual was not willing to participate, we moved further according to random table.

A predesigned questionnaire was used to evaluate Sociodemographic characteristics of the participants and Beck Depression Inventory [13] for screening and questionnaire prepared with 21 items and used to assess their depression status, which includes factors like sadness, guilt feeling, suicidal ideation, changes in appetite and sleep pattern etc. It was designed to document a variety of depressive symptoms the individual experienced over the preceding two weeks. The reason behind choosing a Multiple Choice questions are to limit the responding times and to elicit more specific and objective answers.

All variable were classified as categorical including Age, Gender, Religion, Caste, Education, Father's Education, Mother's Education, Father's Occupation, Mother's Occupation, BG Prasad Socio-economic classification. To estimate the prevalence of depression, the number of cases of depression was divided by the total sample and a confidence interval of 95% was determined. Analysis of the relationship between a depressed state and Sociodemographic variables, lifestyle and sleep quality was carried out by means of linear regression based on data distribution. A significance level of 5% was used in order to minimize type I error. Data were entered in Microsoft excel and analyzed. The software was used for data analysis Epi-info version 7.2

The permission for the study was obtained by a principal of institution to perform a study IEC/11/2017. Questionnaire was distributed in every adolescent followed by full explanation of the reasons for the implementation of the study. Participant was assured of the confidentiality of their responses and provided informed verbal consent had taken from every adolescent's parents. Special attention was paid to ensure that the subjects clearly understand the instructions about answering the questions. The filled form was collected in the same session. Repeated anonymous sampling was avoided to prevent duplicate sampling of individual participants.

3. Result

Undoubtedly, Age, Gender, Religion, Caste, Education, Father's Education, Mother's Education, Father's Occupation, Mother's Occupation, BG Prasad Socio-economic classification which helps in participation and participation implies decision making and is viewed as a strategy for human development as it closely linked to promotion of leadership, i.e. ensuring transforming capacities at the social level, that empower adolescents, adolescent groups, communities and the country to get involved in the process toward individual and collective developments. Considering this view, this study examined the relationship of the adolescents Sociodemographic predictors and depression on the basis of Beck Inventory Method.

Table 1 shows that majority 37.0% were in the age group of 17 years, followed by 1.3% were in the age group of 15 years. Out of all participating respondents 74% were female and 26% were male. Majority 84% were Hindu religion whereas others like Sikh and Christian were constituted 2.5%. Caste-wise distribution among showed that majority were General 62.5% while SC/ST constituted only 6.3% i.e. 51.2% were undergraduate whereas 48.8% was graduate. In Education of parents, 24% had fathers of respondents were passed their high school followed by 0.8% can only read and write while, 77.25% mothers were literate but 22.75% mothers were literate i.e. 33.5% fathers were laborer followed by 5.3% fathers was in cultivation whereas 90.75% was unemployed while 9.25% mothers was employed.

In the present study, majority of respondents of 53% was in upper middle class followed by 3.5% were belongs to lower middle class as per Modified B G Prasad Socio-Economic Scale.

Table 2 and 3 shows that Overall prevalence of depression in selected respondents of 15-19 years was found to be 52% i.e. prevalence of moderate depression was very high about 28%, followed by 17% was in borderline clinical depression and 7% was in severe depression majority of prevalence of depression was found 64.1% in 18 years old.

Table 4 shows that on linear regression analysis, a number of predictors had analyzed for significant association with depression in the adolescents so, the analysis revealed that Education is significantly associated with depression (*P<0.05).* No significant association was found with the factors like Age, Gender, Religion, Caste, Father's Education, Mother's Education, Father's Occupation, Mother's Occupation, BG Prasad Socio-economic classification (P>0.05).

4. Discussion

Consistent with the economic changes in the country, rural area population is increasing every year. In the competitive era, this has enhanced the risk of developing various mental disorders like depression. Prevalence rates of depression are estimated to range from 15% to 66% in various studies while in our study the prevalence was found to be 52% which is quite higher than other studies by Umesh *et al* and Shukla *et al*[13].

Where 6.6% and 18.7% of adolescents had depression. The difference might be due to screening by different questionnaire. They had used 6-Item Kutcher Adolescent Depression scale while we used Beck Inventory method. The prevalence of depression in the present study was also higher than study done by Trivedi *et al*[14] and the Delhi study in spite of similar questionnaire, BDI (22.5% and 18.4%).[15]

The south India study[15] among urban adolescents reported that 37.1% were mildly depressed, 19.4% were moderately and 4.3% severely depressed and also Gandhari *et al* reported that 24.0%, 7.8% and 2.4% while the proportion in our study was 14%, 28% and 7% respectively. Our study also revealed that education has significant association with depression. Higher is the education worst is the depression may be because people are getting into the rat race causing increase in the depression. We would suggest more studies should be conducted so that better understanding could be gained regarding this neglected issue.

Table 1: Sociodemographic profile of study participants

Variables		Frequency	Percent	Cumulative Percent
Age	15 years	5	1.3	1.3
	16 years	33	8.3	9.5
	17 years	148	37.0	46.5
	18 years	106	26.5	73.0
	19 years	108	27.0	100
	Total	400	100	
Sex	Male	104	26	26
	Female	296	74	100
	Total	400	100	
Religion	Hindu	336	84.0	84.0
	Muslim	54	13.5	97.0
	Others	10	2.5	100
	Total	400	100	
Caste	General	250	62.5	62.5
	OBC	125	31.3	93.8
	SC/ST	25	6.3	100
	Total	400	100	
Education	Undergraduate	205	51.2	51.2
	Graduate	195	48.8	100.0
	Total	400	100	

Variables		Frequency	Percent	Cumulative Percent
Father's Education	Illiterate	48	12.0	12.0
	Can read only	25	6.3	18.0
	Can read and write	3	0.8	19.0
	Primary	49	12.3	31.3
	Middle	67	16.8	48.0
	High School	96	24.0	72.0
	Graduate	81	20.3	92.3
	And above	31	7.8	100
	Total	400	100	
Mother's Education	Illiterate	91	22.75	22.75
	Literate	309	77.25	100
	Total	400	100	
Father's Occupation	None	0	0	0
	Labourer	134	33.5	33.5
	Caste Occupation	71	17.8	51.2
	Business	45	11.3	62.5
	Independent Profession	99	24.8	87.3
	Cultivation	21	5.3	92.5
	Service	30	7.5	100
	Total	400	100	
Mother's Occupation	Unemployed	363	90.75	90.75
	Employed	37	9.25	100
	Total	400	100	

		Frequency	Percent	Cumulative Percent
BG Prasad Socio-Economic Classification	Upper Class	51	12.8	12.8
	Upper middle Class	212	53.0	65.8
	Middle Class	98	24.5	90.3
	Lower Middle Class	14	3.5	93.8
	Lower Class	25	6.20	100
	Total	400	100	

Table 2:- Prevalence of Depression

Levels of Depression	Frequency	Percent	Cumulative Percent
Normal	136	34	34
Mild Mood Disturbance	56	14	48
Borderline clinical Depression	68	17	65
Moderate Depression	112	28	93
Severe Depression	28	7	100
Extreme Depression	0	0	0
Total	400	100	

Table 3:- Prevalence of Depression according to age on the basis of Beck inventory method

		Non-Depressive	Depression	Total
Age	15	5 (100) (2.59)	0 (0) (0)	5
	16	17 (51.51) (8.80)	16 (48.48) (7.72)	33
	17	77 (52.0) (39.89)	71 (47.97) (34.29)	148
	18	38 (35.84) (19.68)	68 (64.1) (32.85)	106
	19	56 (51.85) (29.01)	52 (48.1) (25.12)	108
	Total	193 (48.25)	207 (51.75)	400

Table 4: Association between different variables and Depression on the basis Beck inventory method

Variables	X^2	Degree of freedom (df)	Significance
Age	13.439	4	0.009
Sex	2.454	4	0.653
Religion	26.415	8	0.001
Caste	11.408	8	0.180
Education	16.586	4	0.002
Father's Education	28.336	28	0.447
Mother's Education	9.294	4	0.054
Father's Occupation	31.751	20	0.046
Mother's Occupation	2.46	4	0.651
Total monthly Income per capita	19.438	20	0.494

Acknowledgements

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