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Factors Causing Depression among Adolescents: A Qualitative Evaluation

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Abstract: **Depression is a common disorder which is characterized by severe symptoms that leads to the damage of important social role. Most prominent age group that is struck by depression is the 10-19 years group normally designated as adolescent age group. Adolescents go through a transition from childhood to adulthood and this transitional phase of life has certain characteristics, such as rebelliousness, aggression, impulsivity and insecurity. Psychological behavior of adolescents changes not only because of physical and biological changes but also due to the new behaviors of adults, who treat them as if they were adults and children at the same time. Studies report that one in five children has evidence of mental problems, such as anxiety and depression, and the expected trend of proportion is likely to be increasing. This poses a major concern considering the adolescent age group forms the future of any nation. Hence there is the need to understand the factors that leads to depression among the adolescent age group and also the effects of these factors.**

In this paper, the prominent factors that lead an adolescent into depression were identified through unstructured interviews, discussion with medical practitioners and from published literature. An evaluation of these factors was undertaken using a designed questionnaire with an intention to study cause and effects of depression among the adolescent age group. The responses were analyzed and the observations from the analysis are presented in this paper. It's observed that majority of the respondents showed some form of depression and this is a matter of concern as this age group is the future of the nation. Several depression factors were identified which affected the adolescents, that needs to be timely addressed.

Keywords: **Depression, adolescent, aggression, factors, responses**.

I. INTRODUCTION

Depression is a common disorder and there are many factors in the society and environment that extends its influence among the people across all age group for the inception of depression or related mental malady. Depression is a common and potentially debilitating disorder occurring throughout the life-course [10]. The first onset of depression often occurs in childhood or adolescence, although treatment typically does not occur until later in life [5]. Depression has become one of the most common mental health conditions in medical and psychiatric practice. It ranks fourth among the leading causes of disability worldwide and is expected to become the second leading cause by 2020 (World Health Organization, 2001). Depression is one of the most common mental disorders among adolescents and young adults (World Health Organization, 2016). Reason for this increase in number is cited to be the adolescent phase itself which is a transitional phase from childhood to adulthood characterized by a rapid physical growth that often causes difficulties in accepting their new image accompanied by psychological adolescent behavior manifesting into depression. If untreated, depression significantly may reduce the social opportunities of affected individuals and in some cases; it can even lead to suicide attempts. The publication titled 'Youth in India' (2017) by Ministry of Statistics and Programme Implementation, Government of India designates children in the age group 10 to 19 years as adolescent age group. Adolescent age group being the youth of the society, the depressive symptoms in this age group need to be addressed. The prominent factors that led an adolescent into depression were identified through unstructured interviews, discussion with medical practitioners and also from published literature. An evaluation of these factors was undertaken using a designed

questionnaire with an intention to study cause and effects of depression among the adolescent age group. The responses were analyzed and the observations from the analysis are presented in this paper.

The salient points from the literature are provided in section II which is followed by section III that describes identified factors causing depression in adolescents. Different types of depression are described in section IV and section V gives details about the evaluation. Section VI gives the analysis and salient observations from the responses followed by conclusions.

II. LITERATURE REVIEW

According to [14], a common mental disorder when shows symptoms like loss of pleasure or interest, reduced energy, guilty feelings or low self-esteem, poor sleep or appetite, and low concentration, it is called depression. Depression can affect children and young people, adults, older adults etc. Depression as conceptualized by [3] is a feeling or symptom, a syndrome and a clinical entity. He proposed five attributes for depression. As demonstrated by [17], most cases of depression in adolescence go undetected leading policy makers to put an increasing focus on detection. Adolescent depression is described as an 'epidemic' that has found expression not only in academic journals, but also in the popular press, television programs, and on many websites [7].

Professionals have suggested that a relationship exists between adolescent depression and various factors [4]. The prominent factors that lead an adolescent into depression were identified through unstructured interviews, discussion with medical practitioners and also from published literature are presented in next section.

III. FACTORS CAUSING DEPRESSION

Various behaviours can form symptoms for depression such as dejected mood, crying spells, delusions of crime, sleep disturbances etc. After discussion with medical practitioners and from relevant literature, following factors have been identified that aid depression.

- Self-Esteem (SE) – It is defined as confidence in one's own abilities. There is statistically significant direct relation between self-esteem and depression [4].
- Loneliness and Bullying (LB) – Loneliness is the feeling of having no one and bullying is being mistreated by someone else. There is statistically significant direct relation of loneliness with adolescent depression [4]. Being bullied in childhood is also a potential risk factor for adolescent depression [21].
- Aggression and Anger Discouragement (AD) – Aggression is the feeling of anger resulting in hostile behaviour whereas Anger Discouragement is prevention of anger. A study conducted by [16] proved early socialization of anger, punishment and response of parents to child's emotions to be a reason for the development of conditions like depression and aggression. Also, being aggressive in childhood is a potential risk factor for adolescent depression [21].
- Body Dissatisfaction (BD) – It is the negative attitude towards one's body and appearance. There is a relation between the perception of one's body appearance, self-esteem and feelings of loneliness in adolescents. Analysis of the responses collected by [26] using standard questionnaire showed that body dissatisfaction is an emotional and behavioural manifestation which is reflected in self-esteem and loneliness.
- Primary Insomnia (PI) – Primary Insomnia is a sleep disorder causing trouble falling asleep. The consequences of insomnia in depression were reviewed by [18]. They found insomnia as a significant predictor of depression and a potential depression risk factor. Research by [11] supported the above findings.
- Internalizing (I) – Internalizing deals with adapting a behaviour in response to a situation to which one is exposed repeatedly. As examined by [23], there are three domains of adaptation i.e. internalizing problems, externalizing problems, and academic competence towards depressive symptoms. It found that important pathways towards adolescent depression are through childhood and adolescent internalization.
- Family Conflicts and Economic Strain (FE) – It is the disagreement in family and excessive demand related to money. The tests conducted by [22] revealed that family economic strain was related to depression and aggression primarily through perceived economic strain and conflict among family members.

- Family Support (FS) – Family support is the help procured from family members in need. According to [8], adolescents who are not so attached to their parents or peers show significant difference in the depression level when compared to adolescents who are attached to parents and peers.
- Experiential Avoidance (EA) – [15] stated experiential avoidance (EA) as "unwillingness to remain in contact with uncomfortable private events by escaping or avoiding these experiences". Findings have revealed the presence of strong association of EA with depression and are more likely in families with high conflict [15].
- Self-perceived success in Academics (SA) – It is performance expected by one in their studies. Relationship between depression and anxiety, the vulnerability to depression and self-perceived success in academic domain amongst teenagers is focused in [2]. Using Beck Depression Inventory, it identified positive relation between depression and self-perceived success in academic domain.

The various factors identified here can lead to different types of depression in adolescents as explained in the next section.

IV. TYPES OF DEPRESSION

There are mainly four types of depression classified in Patient Health Questionnaire-9 [19];

- Mild Depression: Mild depression is the most common type and can be a result of both happy and sad events. While usually mild, it can become severe. It can be treated or reduced by a mere support from family or friends.
- Moderate Depression: Moderate depression, or a feeling of hopelessness, lasts longer and is more intense. Moderate depression is often brought on by a sad event, such as the death of a loved one. It usually does not interfere with daily living, but can become severe. If it persists, professional help may be required.
- Moderately Severe Depression: Moderately Severe depression is a bit more severe and usually brought by a sad event that interferes with daily living unlike moderate depression.
- Severe Depression: Severe depression can cause a person to lose interest in the outside world, can cause physical changes, and can lead to suicide. A person with severe depression requires professional treatment.

Identifying the factors and recognizing the different types of depression will help us deciding a treatment regime for the depressed adolescents. The various factors identified contribute in varying degrees on different people. The factor that leads to the depression depends on various situations a particular person is in. No matter what factor caused the depression; it can take the person to any type of depression.

Recent proliferation of adolescent depression cases emphasizes the need to address this issue. As a preliminary step towards this, a survey was undertaken among the adolescent age group in Thiruvananthapuram district of Kerala state (India). The details of the survey and the salient findings are presented in the forthcoming sections.

V. DATA COLLECTION

A survey was conducted among adolescents from different educational institutions. The study was conducted using a designed questionnaire. The population considered is of adolescents which is an infinite population. The sample size for the survey is determined using standard formula illustrated in [1].

Sample size, $N = \frac{Z_{\alpha/2}^2 \sigma^2}{e^2} = 267$ ... (1)

Where,

$z\alpha_{/2} =$ Standard normal variate (1.96 for 95% Confidence Interval)

$\sigma =$ Standard deviation (0.25)

$e =$ Margin of error (3%)

Value of e is taken as per [24].

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The questionnaire consists of two sections. First section collects personal information. The second section is related to factors causing depression which is divided into 12 subsections. The initial 10 subsections are for the ten factors followed by "Activities" subsection to know about the frequency of engagement to activities related to depression. Last subsection is Patient Health Questionnaire (PHQ-9) to measure depression. The reliability of the questionnaire responses were checked using the computation of Cronbach's alpha where value was obtained above 0.6 ascertaining the reliability. The gender wise and location wise questionnaire response details are given in Table I.

TABLE I: DATA COLLECTION DETAILS

Institution Type	Institution Location	Count
Female only	Urban	61
Male only	Urban	56
Mixed	Rural	66
Female only	Urban	10
Mixed	Urban	104

The responses were measured on Likert Scale each of which was given weightage as per [20]. The responses were analyzed using normalized values in IBM SPSS Statistics, Version 21. The results of analysis are explained in the following section.

VI. ANALYSIS AND DISCUSSION

The preliminary analysis carried out on the data collected using questionnaire resulted in following revelations. The total responses include 52.5% female and 47.5% male respondents. Out of the entire sample, 21.4% represents the Upper Primary Level (10-14 years), 20.5% represents Secondary Level (14-16 years), 17.7% represents Higher Secondary Level (16-18 years) and 25.1% represents Degree level (19 years). The sample data constituted 51.9% from Mixed Institutions, 20.5% and 12% from Female Only and Male Only Institutions respectively.

The responses measured in Likert scale for analysis are normalized. The PHQ-9 score is also normalized so as to classify the responses to different types of depression. The normalization is carried out using standard normalization formula.

$$\frac{x - x_{min}}{x_{max} - x_{min}} \qquad \dots (2)$$

where x represents the value from the response, x_{min} and x_{max} are the minimum and maximum value that can be obtained from the PHQ-9. PHQ-9 is a 9-item inventory that measures depression. Response alternatives are scored on a 4-point Likert scale that ranges from "not at all" (0) to "always" (3). For instance, consider third row of Table II. Here, the score range is from 10 to 14 for the moderate category where 10 is the lower limit and 14 is the upper limit. The value of 10 is normalized as;

$\frac{10-0}{27-0} = 0.370$ using equation 2, where;

0 is x_{min} (if all the 9 responses in PHQ-9 is 0) ; 27 is x_{max} (if all the 9 responses in PHQ-9 is 3).

The salient findings from the analysis are as follows:

- Majority of the respondents showed at least one type of depression.
- Females have more depression when compared to males.
- The depression across education level increases when moving from Upper Primary to Degree Level.
- The respondents from joint families reported low depression when compared to respondents from nuclear family.
- Respondents from urban area reported high depression level when compared to respondents from rural area.
- Respondents who use social networking sites and TV more often reported high depression.
- Males show a slightly lower Loneliness and Bullying.

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- Aggression in male is significantly higher when compared to females whereas internalizing is significantly higher in female. Incidentally, same has been observed by [12].
- Family support reported by Degree Level males is very low when compared to the males of other Education Level.
- Males show more Experiential avoidance when compared to females and experiential avoidance gradually increases from Upper Primary to Degree Level.

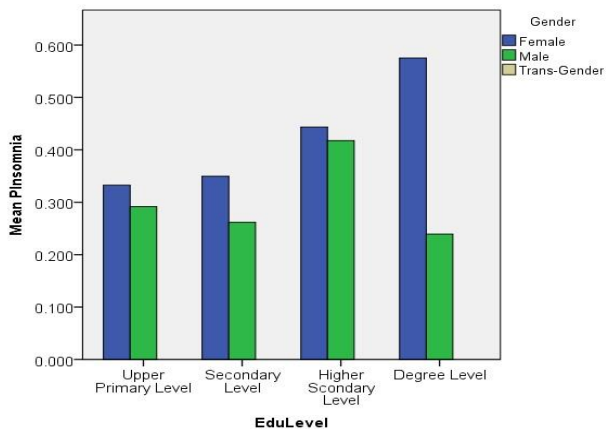

Figure 1: Analysis of body dissatisfaction for different education Level and gender-wise comparison.

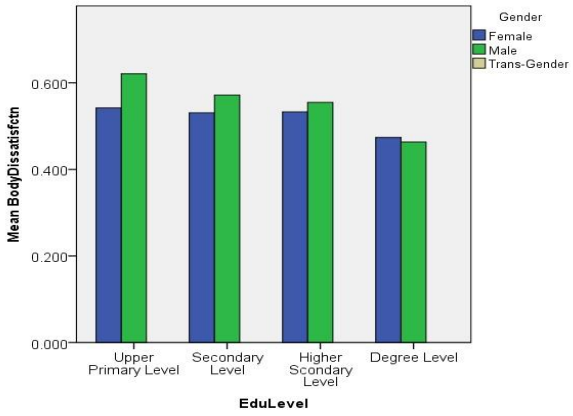

Figure 2: Analysis of Primary Insomnia for different Level and gender-wise comparison.

Analysis of body dissatisfaction for different education level across gender is shown in Figure 1. Body dissatisfaction is more for the respondents of Upper Primary Level and gradually the value decreases with increase in age and education level which might be because of the acceptance of their body appearance and also attributed to their matured thinking and accessibility to means such as gym, parlour etc. to improve appearances.

Analysis of Primary Insomnia for different education level across gender is shown in Figure 2. Primary insomnia increases with increase in age and education level. As the age increases, adolescents sleep less and spend more time in educational and recreational activities. [9] report that sleeping problem among adolescents increase with age which might be due to reduced sleep duration. Females reported significantly high values for insomnia when compared to males which is also supported by [13].

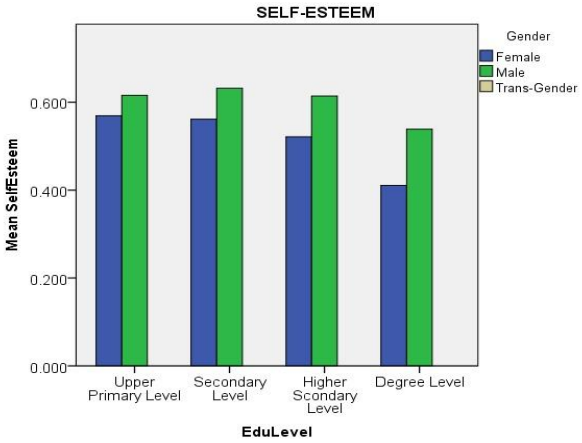

Figure 3: Analysis of self-esteem for different education Level and gender-wise comparison.

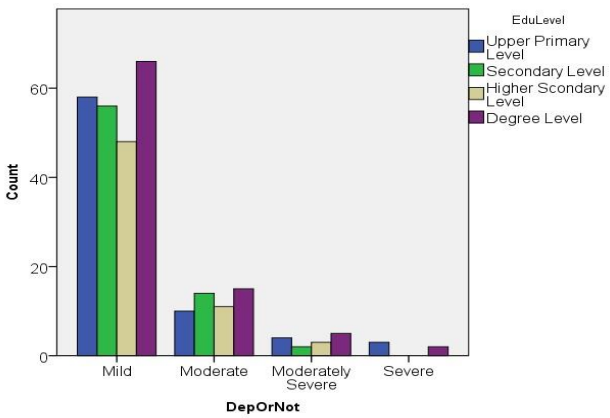

Figure 4: Number of respondents (clustered by education Level) under different types of depression

Analysis of self-esteem for different education level across gender is shown in Figure 3. A high self-esteem among males is observed when compared to females and the same is observed by [4] and the mean value of self-esteem gradually reduces with increase in age which is consistent with the findings of [6].

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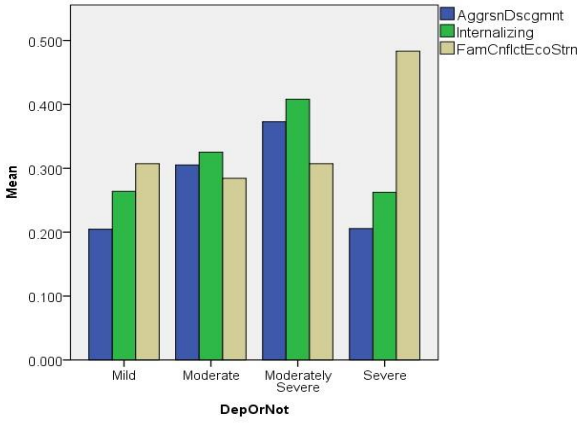
Number of respondents under different types of depression based on their education level is shown in Figure 4. Severe depression is reported by respondents from Upper Primary and Degree Level. Upper primary level is the base of development for higher classes accompanied by hormonal changes and competition while degree level category have pressure from work and societal-parental-peer pressure at higher level of learning.

Score	Depression Category	Normalized value	Value Range	ST	SA	Number of Responses
<9	Mild	<0.369		0	0	228
10-14	Moderate	0.370-0.554	0.370-0.407	0	0	50
10-14			0.408-0.554	20	0	
15-19	Moderately Severe	0.555-0.739	0.555-0.699	14	0	14
15-19			0.700-0.739	14	4	
>20	Severe	>0.740		5	5	5

TABLE II: THE NUMBER OF RESPONDENTS WITH SUICIDE THOUGHTS (ST) AND SUICIDE ATTEMPTS (SA) CLUSTERED BY DEPRESSION TYPES ALONG WITH PHQ-9 SCORE.

Depression can often lead to suicides. Respondents with high score in moderate and moderately severe types of depression showed suicidal tendencies. Table II gives the number of respondents who demonstrated suicide thoughts and attempted suicide.

The different factors elevating depression (Body dissatisfaction, Loneliness and Bullying, Primary insomnia and Experiential avoidance) are plotted against the types of depression as shown in Figure 5. The respondents with severe depression reported high experiential avoidance followed by loneliness and bullying, body dissatisfaction and primary insomnia respectively. Body Dissatisfaction is high for respondents with moderately severe depression.



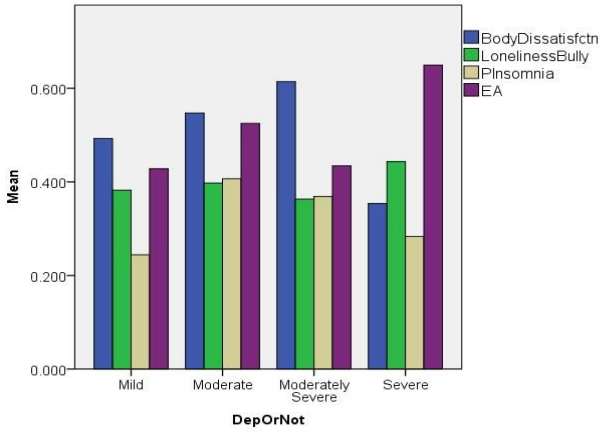


Figure 5: Factors (BD, LB, PI, EA) Vs Types of Depression **Figure 6: Factors (AD, I, FE) Vs Types of Depression.**

The different factors elevating depression (Agression and Anger discouragement, Internalizing and Family conflicts and economic strain) are plotted against the types of depression as shown in Figure 6. The respondents with severe depression reported high family conflict and economic strain followed by Internalizing and Aggression and Anger discouragement respectively. Experiential avoidance (EA) is escaping the situations which may lead leave a person alone to think about the sad events that cause depression. Internalizing is high for respondents with moderately severe depression. As per the findings of [15], there is a presence of strong association of EA with depression and is more likely in families with high conflict.

The number of respondents with different types of depression and their live-in status is shown in Figure 7. Respondents who live with both their parents tend to have only mild depression unlike respondents who live with any one of their parent. The respondents who reported to have severe depression either live with single parent or with either parents. As observed from the survey, two of the respondents with severe depression live with their mothers whereas three of them

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live with their fathers. Interestingly, respondents who live in hostels reported only mild and moderate depression. This could be due to the socializing with the peers.

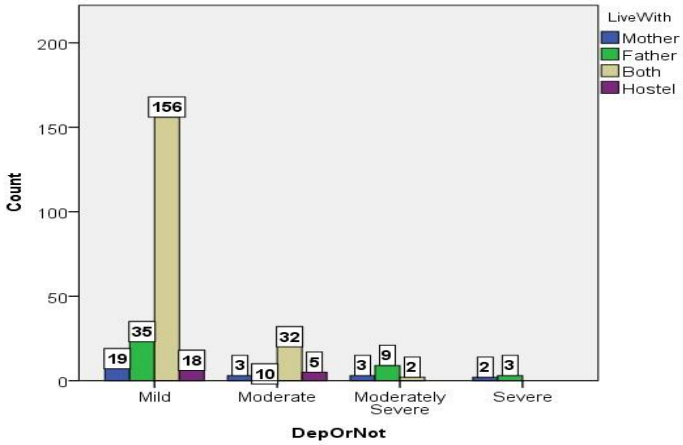

Figure 7: The number of respondents with different types of depression and their Live-with status.

Overall, it's observed that majority of respondents reported some type of depression. Major factors contributing to severe type of depression are experiential avoidance, family conflict and economic strain, internalizing, loneliness and bullying. The factors such as academic stress, peer stress, societal-parental pressure, single parental care, nuclear family, urban life, internet addiction, contribute significantly to depression among the adolescents. Also, the age group addressed is tech-savvy and negative impression from the usage of technology could be one of many reasons that have led to the increase in the depression cases among the adolescents.

VII. CONCLUSIONS

The present work focused on the identification and analysis of the factors that leads to depression in adolescent age-group. Observations from this study could be useful to address issues related to depression in the designated age group. It is desired that the educational institutions, families and societal organizations shall take concern of this age group as this age group is the future of the country. The symptoms of depression need to be identified and addressed at the right time. The present study covers a stratum of the adolescent population in India and similar studies can be undertaken in different parts of the country and abroad to ascertain specific causes of depression in different regions.

Since, there are no models available to deal with depression; a computational model incorporating the factors can be developed in order to make the psychotherapy easier.

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