

# Frequency of Depression among School Going Adolescent Girls in Karachi, Pakistan

<sup>1</sup>Ambreen Alwani ; <sup>2</sup>Muhammad Adnan Kanpurwala ; <sup>3</sup>Shafaq Noori ; <sup>4</sup>Kiran Punjwani

<sup>1-4</sup>Student, Health Management department, Institute of Business Management, Karachi  
[ambr33nalwani@gmail.com](mailto:ambr33nalwani@gmail.com)

<sup>2</sup>Assistant Professor, Department of Physiology, Muhammad Bin Qasim Medical & Dental College, Karachi  
[drmuhammadadnan@hotmail.com](mailto:drmuhammadadnan@hotmail.com)

<sup>3</sup>Assistant Professor, Department of Biochemistry, Muhammad Bin Qasim Medical & Dental College, Karachi  
[shafaqnoori@hotmail.com](mailto:shafaqnoori@hotmail.com)

## Abstract:

## Introduction

*Depression is a serious mental illness, if not taken seriously life - long disorder could be result. The objective of this study was to assess the frequency of depression among school going adolescent girls and the factors contributing towards it.*

## Methodology

A cross sectional study of 204 adolescent girls was conducted from 3 private schools of a single locality of Karachi. Participants were categorized from an age dependant criteria. Early adolescent (09 -11); Middle adolescent (12 - 14); Late adolescent (15 -19). Goldberg's depression questionnaire was used as a tool to assess the depression level and the score was calculated by chi square with the  $P < 0.05$  considered as significant.

## Results

It was found that more than 72 % of adolescent girls are experiencing some level of depression. Contributing factors including education and low grades in previous years are mostly involved in provoking the depression. Middle adolescent age group were more prone to depression as compared to early and late.

## Conclusion:

The results showed high percentage frequency of depression in middle adolescence age group and last year grade and education are contributing factor. Therefore initially proper awareness and clinical assessment is advisable to avoid any serious relevant consequences in future. Counselling and guidelines from health care provider may be helpful to cope up the increase incidence of depression which may leads to mental problems.

**Key Words:** depression, adolescence, school

## Introduction

Stress plays important role in pathogenesis of mental disorders. Anxiety and depression are extremely common, dramatic and debilitating multifaceted disorders, and it is now becoming clear that without knowledge of both clinical and biological aspects of anxiety and depression, it is impossible to offer effective treatment strategies for the patients.<sup>1</sup> Anxiety and Depression are a serious health problem affecting people of all ages. A recent local study showed that 50.2% individuals reported some degree of anxiety. Employment and education status were found to be significantly associated ( $p = 0.01$ ) with anxiety among the participants.<sup>2</sup> Severity, duration and the presence of other symptoms are the factors that distinguished the normal sadness from clinical depression.<sup>1</sup> Prasla in 2012, showed that 18 % of adolescents suffered from depression and the ratio of girls are almost double when compare to boys. They found that pubertal changes from the age of 11 contribute significantly to depression.<sup>3</sup> Naz and Siddiqui developed an Indigenous Depression Scale for Adolescent School girls and found that decrease in grades and withdrawal behaviour from studies may be the cause of early depression. They also found that the major reason for depression in girls in Pakistani orientation were early marriages, stressful load of household works and increased degree of internalizing the pubertal changes among school girls.<sup>4</sup> In another study from Norway in which the depression and feeling questionnaire was established for adolescents and they found through multivariate analysis that dysthymia was associated with factors like gender and single parents.<sup>5</sup>

The importance of body image in adolescent's girl has also explained the depression.<sup>6-7</sup> Peterson et al, examined the developmental process of depression in early and middle adolescent age and revealed that women are more prone to depression because they experienced more challenges. But these symptoms disappears once challenges are considered.<sup>8</sup> Bardone et al, examined the young

adult physical health outcomes of adolescent girls with behaviour problems and found that girls with depression prone more medical problems.<sup>9</sup>

On the basis of above mentioned studies the present study is designed to evaluate the frequency and level of depression among adolescence school going girls and also explore the association of major contributing factors with depression.

### **Materials & Methods:**

This is comparative cross sectional study. 204 samples of adolescent girls were selected for this study. All were studying in private schools located in the locality of Federal B Area Karachi. The Survey was completed in 4 weeks and Goldberg's scale was used to measure the depression level. The samples were categorized according to their age: Early adolescence (9-11), Middle adolescence (12-14), Late adolescence (15-19). Goldberg's questionnaire was used to score the depression level. Participants scored 0-9 considered no depression, a score between 10 - 17 considered as mild depression, 18 -35 considered moderate while 36 and Up considered severe depression. For ethical issue, all participants and their legal guardians gave informed consent and their confidentiality and anonymity were protected. After calculation of scores through Goldberg's scale different factors including; education, low grade in previous years, Self employment, number of siblings, family type were compared with level of depression.

### **Statistical Analysis:**

Statistical analysis was measured by using chi square, whereas p-value 0.05 was considered as significant through SPSS 16.

### **Results:**

Data from 204 adolescent girl's samples were collected from the locality of federal B Area Karachi to assess the depression level. The figure I showed frequency of depression in adolescent girls. The score found that 42 participants were of no depression (25.5 %), 52 were of minor (27.9 %), 57 moderate (26 %) and 53 (20.6%) were of severe depression. The demographic data showed that middle adolescence 72 % group experiencing more depressive disorders as compared to early 8 % and late adolescence 20% (table I). No significant differences were found when demographics and other contributing factors include to assess their association (table II) with depression. But last year academic grade and education were found to be significant with depression ( $P < 0.05$ ).

## Discussion

We evaluated the factors that participate in contributing the depression in adolescence girls and found that more than 72% of our subjects were assigned to some level of depression (table I). It has been found in literature that prevalence of depression is increased and is a major risk factor for suicide. Better diagnosis and treatment of depression can help to reduce the suicide rates among college students. Suicide is the third leading cause of death for teens and young adults ages.<sup>10</sup> The onset of various depressive disorders residing more in middle adolescence at age of 14 -16 years in Central Norway.<sup>9</sup> The rate of residing the major depressive disorders found to be 5% in Switzerland, 5.8% in Sweden which is higher than Germany (3.4 %), Netherland (2.7%) and UK (1.9%).<sup>11</sup>

Last year academic grade is another contributing factor in prevailing the depression. A study conducted in Italy showed that 25 -40% of children and adolescents having depression due to pressure of studies.<sup>6</sup> Studies suggest that women at the age of 18 with depression have independent risk factor of coronary heart diseases .<sup>12</sup>

The association between number of earning members with the depression level showed no significant results (table II ). Our result is inconsistency with previous results. Peterson et al, in 1991, found in their research survey that at least one out of seven respondent reported depression who experiencing an unemployed parent .<sup>9</sup> Similarly, association between number of siblings with depression level showed non- significant result in our study (table II), while a research conducted in Cambodia showed increased level of depressive symptoms with sibling caretaking and adolescent caretakers, who gave negative school performance and mental health condition.<sup>8</sup>

We concluded from present investigation that academic grades and education are the main factors showing significant association with depression in adolescent. Depression is a serious mental illness. Awareness, early diagnosis and treatment could relieve the alarming situations. Chapman et al, suggested that intervention to prevent and treat depression in early adolescents is needed to decrease the disease burden in youngsters.<sup>13</sup> This is examination based study therefore clinical data analysis is strongly recommended.

## LIMITATIONS

This study is conducted in limited area so it couldn't represent the actual figure and statistics of whole adolescent population of Karachi. Therefore, further research is needed to other parts of city.

## Declaration

The article has not been published or sent for publication elsewhere.

## References:

- [1] McPherson KE, Kerr S, McGee E, Morgan A, Cheater FM, McLean J, Egan J. The association between social capital and mental health and behavioral problems in children and adolescents: an integrative systematic review. *BMC Psychol.* 2014; 262(1):7.
- [2] Khan MS, Ahmed MU, Kanpurwala MA, Khan MA, Bawany FI. Frequency of generalized anxiety disorder and associated factors in an urban settlement of Karachi. *J Pak Med Asso.* 2013; 63 (11):1451-5.
- [3] Prasla M. Adolescence depression in Pakistan: new horizon for research. *J Pak Med Stud.* 2012; 2(4): 160-161.
- [4] Naz M.A and Siddiqui S. Development of an Indigenous Depression Scale for Adolescent Schoolgirls. *Pakistan Journal of psychological Research.* 2010; Vol.25: 115-130.
- [5] Sund A. M, Larsson B and Wichstrom L, Prevalance and Characteristics of depressive disorders in early adolescents in central Norway, *Child Adolescent Psychiatry Mental Health.* 2011; 5: 28.
- [6] Rierdan J, Koff E, Stubbs M L, A longitudinal analysis of body image as a predictor of the onset and persistence of adolescent girl's depression, *Journal of Early Adolescence,* 1989; Vol 9: 454-466.

- [7] Schilling E A, Aseltine R H and Gore S, Adverse childhood experiences and mental health in young adults: a longitudinal survey, *Bio Med Central public Health*. 2007; 7:30 doi: 10.1186/1471-2458-7-30
- [8] Petersen A C, Sarigaini P A, Kennedy R E, Adolescent Depression: Why Girls?, *Journal of Youth and Adolescence*.1991; Vol 2: 9
- [9] Bardone A M, Moffit T E, Caspi A, Dickson N, Stanton W R, Silva T A, Adult Physical Health Outcomes of Adolescent Girls With Conduct Disorder, Depression, and Anxiety, *Journal of American Academy of Child and Adolescent Psychiatry*, 1998; 37( 6): 594-601.
- [10] Heslon C. Suicide, a philosophical act or an act of depression? . *Soins Gerontol*. 2016 ;21(119):12-14.
- [11] Cranford JA, Eisenberg D, Serras AM. Substance use behaviors, mental health problems, and use of mental health services in a probability sample of college students. *Addict Behav*. 2009 Feb; 34(2):134–45.
- [12] O'Neil A, Fisher AJ, Kibbey KJ, Jacka FN, Kotowicz MA, Williams LJ, Stuart AL, Berk M, Lewandowski PA, Taylor CB, Pasco JA. Depression is a risk factor for incident coronary heart disease in women: An 18-year longitudinal study. *J Affect Disord*. 2016 ;196:117-24.
- [13] Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, Anda RF: Adverse childhood experiences and the risk of depressive disorders in adulthood, *Affect Disord* 2004; 82:217-225.

Figure I: Depression level & Frequencies of Participants

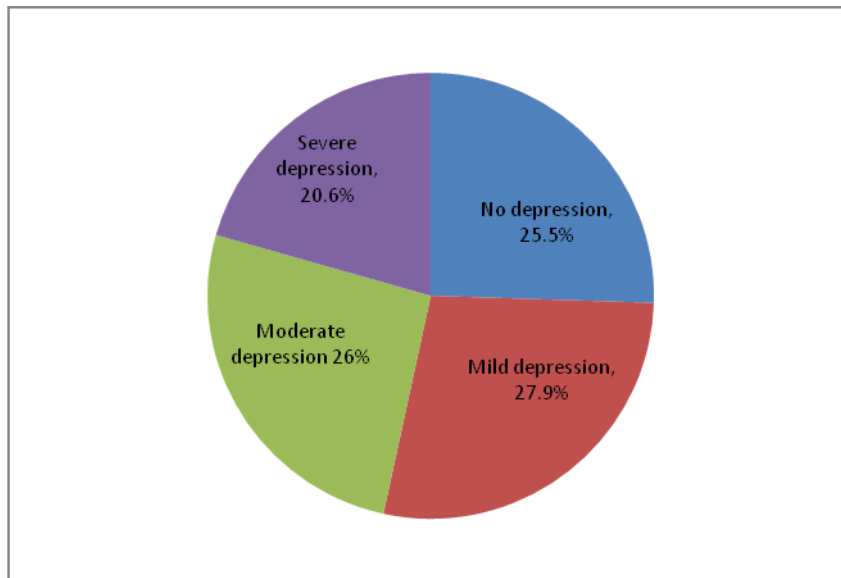


Table I: % Frequency Of Depression According To Age :

Variable (Age Group)	Frequency	Percentage Frequency
Early Adolescence	8	8%
Middle Adolescence	72	72%
Late Adolescence	20	20%
TOTAL	100	100%

Table II: Association of demographics factors with depression level:

Contributing factors		No Depression Likely	Possibly Mildly Depressed	Mild – Moderate Depressed	Moderate – Severe Depressed	P < 0.05
Age in years	(9-11)	02	02	02	07	< 0.01*
	(12 -14)	33	40	36	24	
	(15 - 19)	07	11	19	21	
Previous year Academic grade	A /A +	26	19	21	09	< 0.01*
	B	12	33	21	15	
	C	04	01	15	28	
Family type	Unit	11	23	22	20	0.372
	Nuclear	31	30	35	32	
Self Employed	Yes	06	13	11	14	0.470
	No	36	39	46	38	
No. of siblings	01	05	06	09	05	0.720
	02	18	19	13	17	
	03	13	16	20	19	
	> 03	06	12	15	11	
No. of earning members in family	01	27	34	39	30	0.712
	>01	15	19	18	22	

Where \* represents significant value = P<0.05