

# Prevalence, Determinants and Treatment of Depression among Teenagers in Lahore, Pakistan

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## ABSTRACT

**Aim:** To study the prevalence, determinants and treatment of depression and to increase awareness about depression in Pakistan, to determine the lead causes and to establish the most used treatment plans for depression.

**Study design:** Quantitative study

**Method:** The study employed was through data collection via questionnaire, containing closed questions regarding different factors contributing to depression, its implications and its treatment policies. A sample size of 379 was calculated, questionnaire was filled by 400 teenage subjects and data was analyzed and interpreted.

**Results:** showed that the prevailing factors for depression do exist in the teenage population, and the causes are mostly financial or stress induced, however, the clinical process regarding depression is not up to par, and the treatment process is lacking in awareness and not an integral part of health care.

**Key words:** stress, financial, treatment, prevailing.

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## INTRODUCTION

We all feel unhappy and listless every now and then. And we have all felt down or even desperate at some point in our lives. These phases are a normal part of life, and people usually feel better again after a while. Things are different for people who have depression. Their sadness and negative thoughts last longer and overshadow all of their thoughts and actions. Depression can arise without any triggering events or for no apparent reasons (Gilbert, 2009).

There are different types and severities of depression. The most common form of depression is known as unipolar depression. People experience several typical symptoms such as feeling low, exhaustion, joylessness and a lack of motivation for at least two weeks. Depending on how many symptoms a person has and how severe they are, depression is classed as mild, moderate or severe (Shaver and Brennan, 1991).

Bipolar disorder (often called manic depressive disorder or manic depression) is a specific form of depression. It is a lot less common than depression. People who have bipolar disorder go through alternating phases of being depressed and being extremely energetic and euphoric ("manic"). Dysthymia is chronic depressive disorder in which

patients may be unsettled, unhappy and down, but this does not affect their everyday lives as much as depression. Some people are particularly affected by depression in the dark fall and winter months. This kind of depression is referred to as seasonal affective disorder. Many mothers experience inexplicable mood swings and exhaustion after childbirth which is known as postnatal or post-partum depression (Carlson et al., 1997).

The identification of major depression is based not only on its severity but also on persistence, the presence of behavioral and physical symptoms, and the degree of functional and social impairment (Health, 2010).

Behavioral and physical symptoms typically include tearfulness, irritability, social withdrawal, an exacerbation of pre-existing pains, pains secondary to increased muscle tension, a lack of libido, fatigue and diminished activity, although agitation is common and marked anxiety frequent. Typically there is reduced sleep and lowered appetite (sometimes leading to significant weight loss), but for some people it is recognized that sleep and appetite are increased (DIAMOND, 1964). A loss of interest and enjoyment in everyday life, and feelings of guilt, worthlessness and that one deserves punishment, are common, as are lowered self-esteem, loss of confidence, feelings of helplessness, suicidal ideation and attempts at self-harm or suicide.

Cognitive changes include poor concentration and reduced attention, pessimistic and recurrently negative thoughts about oneself, one's past and the future, mental slowing and rumination (Health, 2010).

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The average age of the first episode of major depression occurs in the mid-20s and, although the first episode may occur at any time from early childhood through to old age (Kessler et al., 2007). People with early onset depression (at or before 20 years of age) and depression occurring in old age have a significantly increased vulnerability to relapse. Thus, while the outlook for a first episode is good, the outlook for recurrent episodes over the long term can be poor with many patients experiencing symptoms of depression over many years.

Worldwide estimates of the proportion of people who are likely to experience depression in their lifetime vary widely between studies and settings, but the best estimates lie between about 4 and 10% for major depression, and between about 2.5 and 5% for dysthymia (low grade chronic depressive symptoms with disparities attributable to real differences between countries and the method of assessment (Organization, 2001). The estimated point prevalence for a depressive episode (F32/33, ICD-10; WHO, 1992) among 16- to 74-year-olds in the UK in 2000 was 2.6% (males 2.3%, females 2.8%), but, if the broader and less specific category of 'mixed depression and anxiety' was included, these figures rose dramatically to 11.4% (males 9.1%, females 13.6%).

Prevalence rates have consistently been found to be between 1.5 and 2.5 times higher in women than men and have also been fairly stable in the age range of 18 to 64 years (Bosch et al., 2004).

**Pharmacological Treatments:** The mainstay of the pharmacological treatment of depression for the last 40 or more years has been antidepressants. Tricyclic antidepressants (TCAs) were introduced in the 1950s, the first being imipramine. The mode of action of this class of drug, thought to be responsible for their mood-elevating properties, is their ability to block the synaptic reuptake of monoamines, including noradrenalin (NA), 5-hydroxytryptamine (5HT) and dopamine (DA). In fact, the TCAs predominantly affect the reuptake of NA and 5HT rather than DA. The antidepressant properties of monoamine-oxidase inhibitors (MAOIs) were discovered by chance in the 1950s, in parallel with TCAs.

**Psychological treatments:** Psychological treatments for the treatment of people with depressive illnesses include: cognitive behavioral therapies; behavioral activation; interpersonal therapy (IPT); problem-solving therapy; counseling; short-term psychodynamic psychotherapy; and couples therapy.

**Methodology:** Prevalence, determinants and treatments for depression among teenagers in Lahore was determined qualitatively through questionnaire.

A questionnaire was designed, consisting of different close ended questions, divided into three parts, corresponding to the 3 parts of the title of the project, the prevalence, determinants and treatment of depression. The prevalence section consists of simple questions assessing participants level of satisfaction from life, the mindset, and attitude towards life, indicating whether he/she faces depression or not. The participant themselves might not know that they face depression.

The determinants section consists of more specific questions, regarding different aspects of life, which might indicate a probable cause or determinant of a person's depression.

The third section is for the information regarding the treatment strategies of the participant if he/she is facing depression, how successful has their strategy been, how confident they are and what nature it is.

**Sample size:** For a survey design based on a simple random sample, the sample size required can be calculated according to the following formula:

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

Where n=required sample size

T= confidence level at 95% (standard value of 1.96)

P=estimated prevalence of malnutrition in the project area (44%)

m=margin of error at 5% (standard value of 0.05)

n=378.62 ~ 379

**Inclusion criteria:**

- Teen age (12-19)
- BMI normal
- Both male and female

**Exclusion criteria:**

- Pregnant women
- People suffering from other diseases

**Site selection:** Two types of sites were chosen for this study. A high school in the city of Lahore, and various urban locations throughout the city were chosen to fully encapsulate the diverse population of Lahore of people belonging to various lifestyles and standards.

Beaconhouse School System A.I.T campus was chosen as the school to conduct this study, as it has an abundance of teenagers, dealing with different aspects of academic life, and coming from different backgrounds.

Different locations like shops, workshops, and various other establishments employing teenagers

were chosen, to get a diverse set of data regarding the population.

**Procedure:** Questionnaires were designed, and given to the participants to fill. Anonymity and aims of the study were clarified on the questionnaire. The questions were close ended and of a simple nature and language.

The questionnaires were given at the participant's place of work or academia, and received upon fulfillment.

For participants who could not understand English, the questions were translated and interpreted in Urdu for their convenience and proper understanding.

## RESULTS

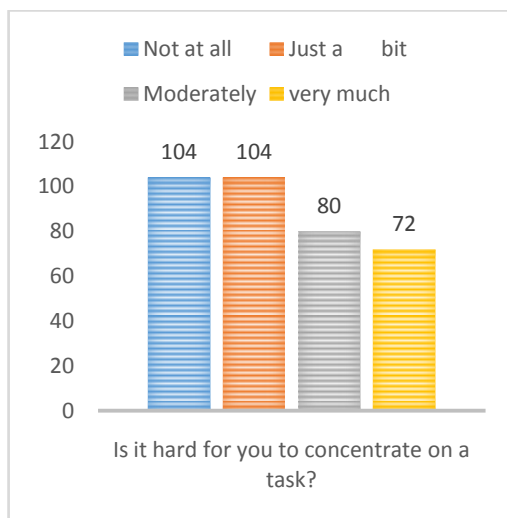


Fig.1: Hard to concentrate on task

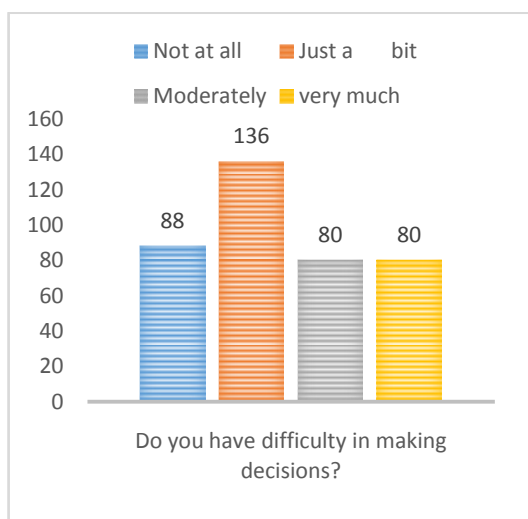


Fig.2: Difficulty in making decisions

A lot of subjects have trouble concentrating on talks, however the percentage of people not having

a problem is higher. This, however is not very indicative of prevalence for depression. The figures for not at all and very much are almost the same for this question, which shows an interesting situation regarding being able to make decisions, however, some doubts still lingers since the just a bit section has the highest figure.

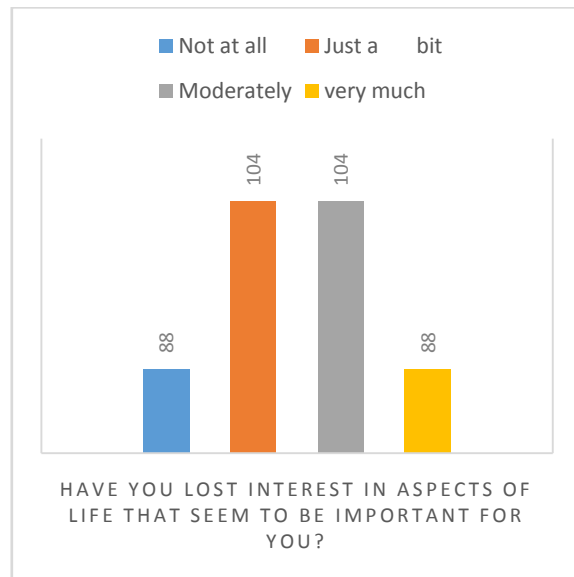


Fig.3: Feelings sad and unhappy

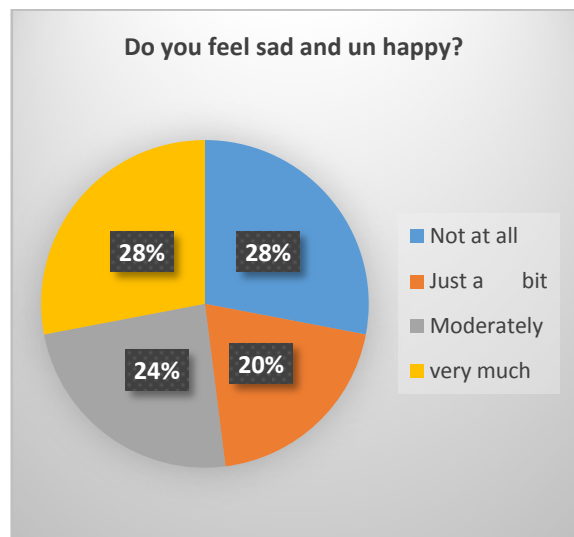


Fig. 4: Loss of interest in important aspects of life

This complies with the nature of a teenagers mindset, growing up and developing new interests, the results for this question are symmetrical, and can be indicative of depression. The result for this question has very mixed figures, all the sections are almost the same, so more than 70% of the subjects cannot say with confidence that they are not feeling

sad or unhappy, an important indicator of prevalence of depression.

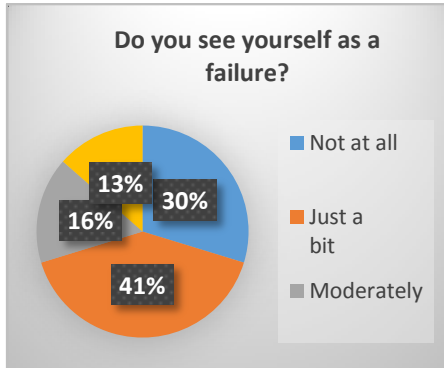


Fig.5: Feel as Failure

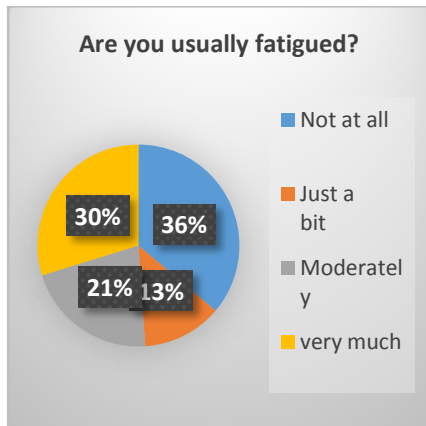


Fig. 6: Usually Fatigue

Only 30% of the subjects do not feel they are a failure, others however see themselves as a failure, or have doubt that they are, failing at this age of life, seems to be a cry for help and can be a strong indicator for prevalence of depression. The result for this question is not very expressive, for the subjects who do feel fatigued, it can be attributed to possibly high work load, which can lead to stress and depression.

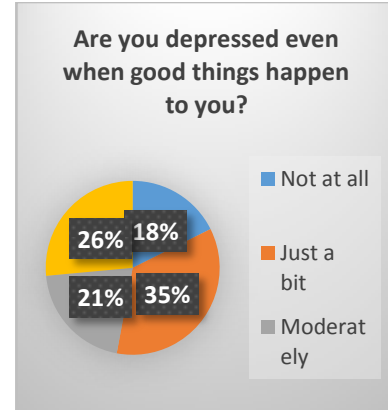


Fig.7: Depression even when good things happen

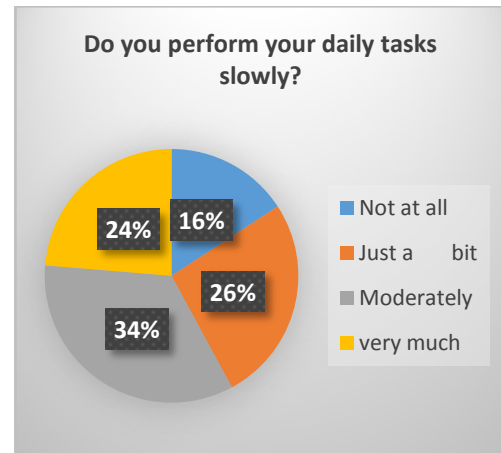


Fig. 8: Slow performance

Most of the subjects, in some capacity, still feel depressed even when good things happen, which indicates a tendency to wanting to stay sad, and having low expectations. Most of the subjects are lethargic in their daily tasks, they have slow performance, probably because they are not interested in what they are doing, and they don't have a zeal for life, which is indicative of prevalence of depression.

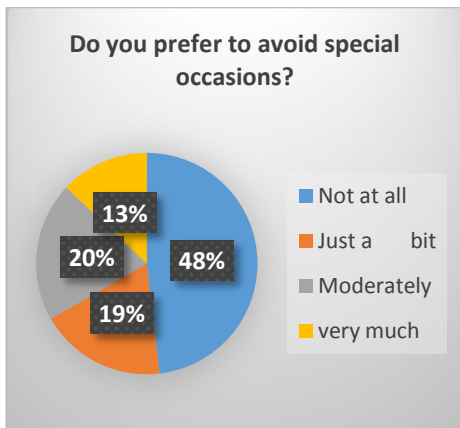


Fig. 9: Avoid special occasions

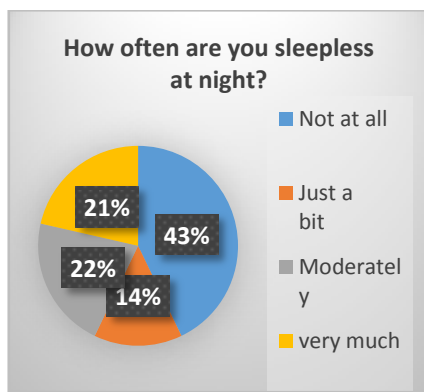


Fig.10: Sleepless night

The tendency to avoid special occasions comes from a state of loneliness and social inadequacy. The increasing trend here is that most subjects do not feel that need to avoid, which indicates that the population has a healthy social life, therefore not depressive. The highest percentage of the sections does not feel sleepless at night, although collectively, the percentage that does feel sleepless is more, this can be indicative of depression, or at the very least, stress.

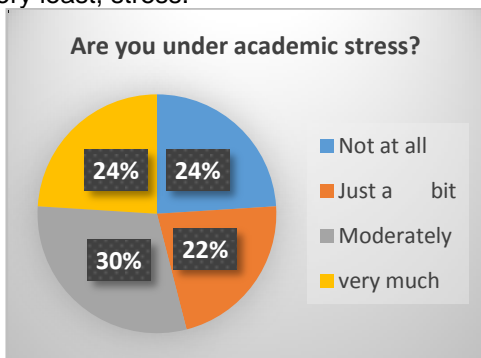


Fig.11: Academic Stress



Fig. 12: Financial Problem

Only 24% of the students are totally free of academic stress, while others have a lot. About 66% of the subjects face financial problems in their way to achieving their goals, some have a severe problem, while some have a moderate one, this makes it an important indicator for prevalence for depression.

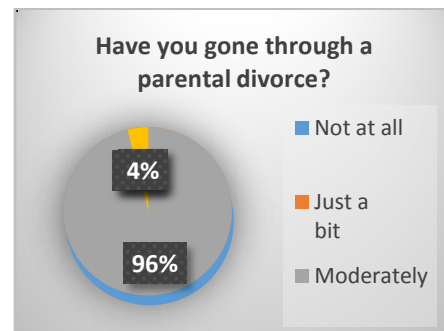


Fig.13: parental divorce

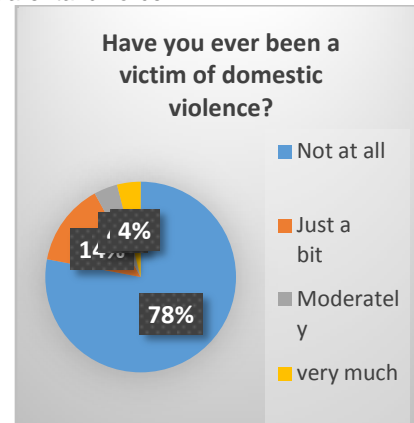
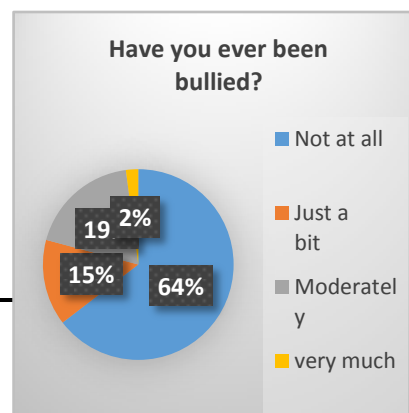


Fig.14:Victim of domestic violence

Parenteral divorce is one of the biggest reasons for the development of depression in youngster, however in a country such as Pakistan, divorce rates are considerable lower then western countries and almost every subject is not facing this problem. More than 75%



of the subjects have not been subjected to domestic violence, which shows this is not a big factor in depression in our country, however, about 22% do face this problem.

and also making them insomniac. Some of them make mistakes and feel guilty about them. Some are so depressed, they cannot even enjoy the good things that happen in their life. Some feel left out, like outcasts, and develop an inferiority complex, and also avoid special occasions and events. All of these factors are strong indicators for prevalence of depression.

Despite all of this, a considerable fraction of the subjects have ambitions and goals, and are hopeful about their future, which shows a healthy zeal for life. There are a lot of causes that can contribute to the depressive state of these subjects who have depression. Academic stress is one of the causes touted by the subjects, it can be attributed to increased workloads, hectic schedules, pressure to get employment. Speaking of employment, a lot of subjects face financial problems in the way of achieving their goals. Peer pressure from friends and social anxiety, keeping up with standards and trends of society is one of the reasons for depression. Relative deaths, trauma, and relationships were not seen as leading causes of depression according to the study, although still a factor. Bullying and domestic violence were very scarce factors, and parental divorce was almost not present.

Despite there being signs and indications of depression in many subjects, a very small percentage of the subjects are actually "clinically" diagnosed as depressed. This can be due to people not being aware of their depression, or not visiting any professional regarding the matter, because according to personal opinion of the subjects, the number of subjects depressed is comparably high to the subjects who are clinically depressed.

The number of subjects who were prescribed any medication was relatively low. For the subjects who were prescribed, about half of them believed the medications to be effective. However, some subjects were planning to change their condition solely by changing their lifestyle and having a positive outlook on life. Psychic therapy was not a popular treatment choice, and its effectiveness was not reflected much either in the data.

A lot of subjects feel that they did not receive proper counseling for their condition, showing that they are not properly aware of the effects of their condition and its implications. However, about half and half of the subjects were confident about their treatment plans to work and not confident in their treatment plans.

There are a lot of prevailing factors which can lead to depression for a teenager in Pakistan. These should be removed to eradicate possibilities

Fig. 15: Being Bullied

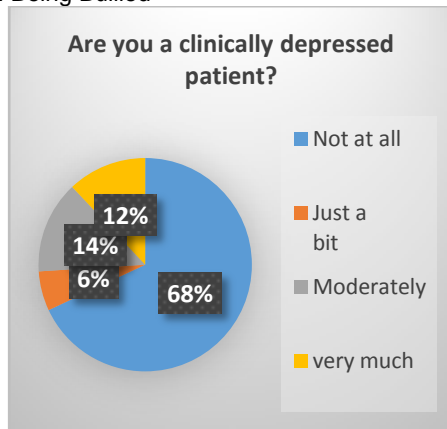


Fig.16: Clinically depressed

Bullying can lead to many emotional states that can attribute to prevalence of depression, however according to the study more than half of the subjects do not face bullying problems in educational areas and other places.

## DISCUSSION

According to the data collected in the study, there are various factors which can be prevalent of depression in our teenage population, but they also have a resilient attitude towards it.

A big percentage of the teenagers are not satisfied with their life, yet most of them still feel their futures are hopeful. For some, it's hard to make a decision, and for some it is hard to concentrate on a task. As these teenagers grow up, their lives change and they lose interest in things that used to be important to them. There is an underlying feeling of sadness in most of them. Hectic schedules and workloads make them restless and fatigued,

for depression. Standard of living should be made better, attention should be paid to the mental health of the teenagers, and the transition from academic life to practical life should be made smoother.

Problems like high work load should be sorted out. Teenagers who have financial problems should be aided, and factors giving birth to these problems should be removed or modified in a better way.

The treatment procedures and clinical process for depression is not up to par. Attention should be paid to it. Initiatives should be taken for mental health, and should be treated as importantly as physical health. Awareness regarding it should be increased. Proper counseling should be given to patients.

## REFERENCES

1. BOSCH, F. X., RIBES, J., DÍAZ, M. & CLÉRIES, R. 2004. Primary liver cancer: worldwide incidence and trends. *Gastroenterology*, 127, S5-S16.
2. CARLSON, K. J., EISENSTAT, S. A. & ZIPORYN, T. D. 1997. *The women's concise guide to emotional well-being*, Harvard University Press.
3. DIAMOND, S. 1964. Depressive headaches. *Headache: The Journal of Head and Face Pain*, 4, 255-260.
4. GILBERT, P. 2009. *Overcoming Depression: A Books on Prescription Title*, Hachette UK.
5. HEALTH, N. C. C. F. M. Depression in adults with a chronic physical health problem. 2010. BrPsychological Society.
6. KESSLER, R. C., AMMINGER, G. P., AGUILAR-GAXIOLA, S., ALONSO, J., LEE, S. & USTUN, T. B. 2007. Age of onset of mental disorders: a review of recent literature. *Current opinion in psychiatry*, 20, 359.
7. WHO. 2001. *The World Health Report 2001: Mental health: new understanding, new hope*, World Health Organization.
8. Shaver, P. R. & brennan, K. A. 1991. Measures of Depression. *Measures of personality and social psychological attitudes*, 1, 195