

## PREVALANCE OF EATING DISORDERS, SUBSTANCE ABUSE AND DEPRESSION AMONG UNDERGRADUATE GIRLS

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### ABSTRACT:

*Eating disorders are mental illnesses that cause serious disturbances in a person's everyday diet. A person with an eating disorder may go to great lengths to hide, disguise or deny their behaviour, or do not recognize that there is anything wrong. Substance abuse is a patterned use of a substance (drug) in which the user consumes the substance in amounts or with methods which are harmful to themselves or others. Depending on the actual compound, drug abuse may lead to health problems, social problems, morbidity, injuries, unprotected sex, violence, deaths, motor vehicle accidents, homicides, suicides, physical dependence or psychological addiction. Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness and poor concentration. It is a mood disorder is characterized by the feelings of severe despondency and dejection.*

*The current investigation was designed to study the prevalence of eating disorders, substance or drug abuse and depression among the undergraduate girls and the interrelationship between eating disorder, substance abuse and depression. The sample for current investigation consisted of 80 college students from post graduate Government college for girls, sector-11, Chandigarh (where 40 are day-scholars and 40 are hostellers) in the age group of 17-23 years. For this purpose, the Eating Attitude Scale, Drug Abuse Screening Test and Beck Depression Inventory were administered to the sample. Inter-correlational analysis was used for the statistical analysis. Eating disorder and substance use are found to be positively related with depression. Results will be discussed along with the implications.*

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### INTRODUCTION

#### EATING DISORDERS

Eating disorders often begin with the best of intentions, a desire to lose weight and control eating<sup>1</sup>. But in some people, those good intentions go badly wrong, resulting in anorexia nervosa, bulimia, binge eating, or other disorders. A person with an eating disorder may have disturbed eating behaviours coupled with extreme concerns about weight, shape, eating and body image<sup>2,3</sup>. These disorders frequently coexist with other mental illnesses such as depression, substance abuse, or anxiety disorders. Eating disorders can be classified into different categories:

- Anorexia nervosa- is characterized by extreme thinness (emaciation), a relentless pursuit of thinness and unwillingness to maintain a normal or healthy weight, intense fear of gaining weight, distorted body image, perception influenced self-esteem, lack of menstruation among girls and women, restricted eating and denial of extremely low body weight<sup>4</sup>.
- Bulimia nervosa- is characterized by recurrent and frequent episodes of eating unusually large amounts of food and feeling a lack of control over these episodes. This binge-eating is followed by behavior that compensates for the overeating such as forced vomiting, excessive use of laxatives or diuretics, fasting, excessive exercise, or a combination of these behaviors<sup>5</sup>.

- Binge-eating disorder- a person loses control over his or her eating. Unlike bulimia nervosa, periods of binge-eating are not followed by purging, excessive exercise, or fasting. As a result, people with binge-eating disorder often are over-weight or obese. They also experience guilt, shame, and distress about their binge-eating, which can lead to more binge-eating<sup>6,7</sup>.

Set point is the weight range in which your body is programmed to weigh and will fight to maintain that weight. Set-point theory<sup>8</sup> refers to the weight a person maintains and returns to after dieting or overfeeding. Set-point varies with age and activity levels, and may be raised if the person is subject to chronic deprivation. Set point theory can be brought into play to determine a healthy target weight for full weight restoration<sup>9</sup>.

#### AIM

The present investigation aims to study the prevalence of eating disorders, drug use and depression among the undergraduate college students and the interrelationship between eating disorder, substance abuse and depression.

#### SUBSTANCE ABUSE

Substance use means using one or many psychoactive substances without giving rise to health or behavioural problems that might harm users themselves or anyone else. Substance use is common among teenagers and young adults who may experiment with a psychoactive substance, out of

curiosity, for the fun of it, or because of peer pressure<sup>10</sup>. Most of the time, this use seems to stop there, without escalating to increased use. Substance use becomes substance abuse when it impairs the user's physical or psychological health, aggravates certain illnesses, or even causes premature death. Substance abuse means using psychoactive substances in a way that may cause physical, psychological, economic, legal, or social harm to users themselves or to people directly or indirectly associated with them<sup>11,12</sup>.

According to the Ego/Self theory of Substance Dependence<sup>13</sup>, drug dependence is tied intimately to an individual's attempt to cope with his or her internal emotional and external social and physical environment. Drug dependency can best be understood by examining how such a person's ego organization and sense of self serve or fail the individual's attempts to cope, and how the specific effects of various substances facilitate or impede such attempts<sup>14</sup>.

According to the Theory of Drug Use<sup>15</sup>, disturbance in the normally expected mastery of phase-specific conflicts during early childhood may induce severe primitive psychopathologies, the addictions being prominent among these. Failure to cope adequately with the rage, overstimulation, and disorganized sensory input of such experiences leaves residual sensory overload and disorganization<sup>16</sup>. The drug user is hypothesized to achieve relief via the specific altered ego states induced by psychotropic drugs. The drug of choice will be the pharmacologic agent that proves harmonious with the user's characteristic mode of reducing stress<sup>13</sup>. The user's drug of choice appears to produce an altered ego state which is reminiscent of and may recapture specific phases of early child development<sup>11</sup>.

## DEPRESSION

Depression is not uniform. A general feeling of pessimism sets in as the person feels hopeless, restless, irritated, have disturbed sleep patterns, body aches, suicidal thoughts and eating habits. Depression is different from feeling down or sad<sup>16</sup>. Unhappiness is something which everyone feels at one time or another, usually due to a particular cause<sup>17</sup>. A person suffering from depression will experience intense emotions of anxiety, hopelessness, negativity and helplessness, and the feelings stay with them instead of going away<sup>18</sup>. Depression can happen suddenly as a result of physical illness, experiences dating back to childhood, unemployment, bereavement, family problems or other life-changing events. Pituitary damage, a treatable condition which frequently follows head injuries, may also lead to depression<sup>19,20</sup>. Sometimes, there may be no clear reason for your depression but,

whatever the original cause, identifying what may affect how you feel and the things that are likely to trigger depression is an important first step. There are several forms of depressive disorders<sup>21,22</sup>:

- Major depressive disorder (major depression)- the patients suffer from a combination of symptoms that undermine their ability to sleep, study, work, eat, and enjoy activities they used to find pleasurable<sup>23</sup>.
- Dysthymic disorder (dysthymia or mild chronic depression) - the patients suffer from a combination of symptoms for a long time. The symptoms do not disable the patient, but they may find it hard to function normally and feel well<sup>24</sup>.
- Psychotic depression (delusional depression)- a person with severe depression along with some form of psychosis, such as having disturbing false beliefs or a break with reality (delusions), or hearing or seeing upsetting things that others cannot hear or see (hallucinations)<sup>25</sup>.
- Postpartum depression (postnatal depression) - which is much more serious than the "baby blues" that many women experience after giving birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be overwhelming<sup>26</sup>.
- SAD (seasonal affective disorder)- which is characterized by the onset of depression during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer<sup>27</sup>.
- Bipolar disorder (manic-depressive illness)- is characterized by cycling mood changes from extreme highs (e.g., mania) to extreme lows (e.g., depression)<sup>28</sup>.

According to Object relations theory, depression is caused by problems people have in developing representations of healthy relationships. Depression is a consequence of an ongoing struggle that depressed people endure in order to try and maintain emotional contact with desired objects<sup>29</sup>. There are two basic ways that this process can play out: the anaclitic pattern, and the introjective pattern. Anaclitic depression is caused by the disruption of a care giving relationship with a primary object and is characterized by feelings of helplessness and weakness. Introjective depression arises from a harsh, unrelenting, highly critical superego that creates feelings of worthlessness, guilt and a sense of having failure leading to intense fears of loss of love from a desired object<sup>30</sup>.

## HYPOTHESES

1. It is expected that there will be a positive relationship between Eating Disorders and Substance Use among day scholar and hostellers.
2. It is expected that there will be a positive relationship between Substance Use and Depression among day scholar and hostellers.
3. It is expected that there will be a positive relationship between Eating Disorders and Depression among day scholar and hostellers.
4. It is expected that the tendency of Eating Disorders would be high among hostellers as compared to day scholars.
5. It is expected that the tendency of Substance Use would be high among the hostellers as compared to day scholars.
6. It is expected that the tendency of Depression would be high among hostellers as compared to day scholars.

## METHODOLOGY

The purpose of the current investigation is to study the prevalence of eating disorders, substance abuse and depression among undergraduate girls and the interrelationship of eating disorders, substance use and depression. For this purpose, Eating Attitude Scale, Drug Abuse Screening Test and Beck Depression Inventory were administered to the sample.

**The Eating Attitude Scale**, is a standardized self-report measure of symptoms and characteristic of eating disorders. The original 40-item version of the EAT, examined the socio-cultural factors in the development and maintenance of eating disorders. A 1982 publication by Garner and colleagues described a 26-item refinement of the original test. The test is rated on a six-point scale in response to how often the individual engages in specific behaviors. The questions may be answered: Always, Usually, Often, Rarely, Sometimes, and

Never. Individuals who score 20 or more on the test should be interviewed by a qualified professional to determine if they meet the diagnostic criteria for an eating disorder. The EAT-26 is not designed to make a diagnosis of an eating disorder or to take the place of a professional diagnosis or consultation. The EAT-26 has been particularly useful a screening tool to assess eating disorder risk in high school, college and other special risk samples.

**Drug Abuse Screening Test**, was designed to provide a brief instrument for clinical screening and treatment evaluation research. It is a 28-item face valid self-report measure of problematic substance use that is utilized for clinical screening and treatment/evaluation research. Responses to the DAST are given as binary (yes/no) items, each valued at one point, yielding a total score ranging from 0 to 28. A cutoff score of 6 is generally used to indicate drug abuse or dependence problem.

**Beck Depression Inventory**, is a 21-question multiple-choice self-report inventory, for measuring the severity of depression. The questionnaire is designed for individuals aged 13 and over, and is composed of items relating to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss, and lack of interest in sex etc. There are three versions of the BDI—the original BDI, first published in 1961 and later revised in 1978 as the BDI-1A, and the BDI-II, published in 1996. For the current investigation BDI (1961) was used.

The sample for the current investigation comprised of 80 undergraduate girls, further divided into 40 day-scholars and 40 hostellers. The age group of the sample was 17-23 years. The sample was collected from Post Graduate Government College for Girls, Chandigarh. The participants were given specific instructions for the three tests. The results are discussed further and are presented in a tabular pattern.

## RESULTS

**TABLE 1: Correlation matrix between eating disorders, substance abuse and depression among day scholar.**

	EATING DISORDERS	SUBSTANCE ABUSE	DEPRESSION
EATING DISORDERS	-	0.271	0.398
SUBSTANCE ABUSE		-	0.118
DEPRESSION			-

**TABLE 2: Correlation matrix between eating disorders, substance abuse and depression among hostellers**

	EATING DISORDERS	SUBSTANCE ABUSE	DEPRESSION
EATING DISORDERS	-	0.641	0.628
SUBSTANCE ABUSE		-	0.4252
DEPRESSION			-

TABLE 3: t-ratios

	Day Scholars		Hostellers		t-ratio
	MEAN	SD	MEAN	SD	
<b>EATING DISORDERS</b>	21.317	3.704	24.024	3.365	0.08
<b>SUSTANCE ABUSE</b>	4.390	0.918	6.682	1.419	20.8*
<b>DEPRESSION</b>	9.097	1.655	10.975	1.313	2.01*

- \*0.05 level

## DISCUSSION

The primary objective of the current investigation was to study the prevalence of eating disorders, substance abuse and depression among undergraduate girls and the interrelationship of eating disorders, substance use and depression. The results are in accordance to the proposed hypotheses.

Hypothesis 1 stated that there will be a positive relationship between Eating Disorders and Substance Use. The correlation value came out to be 0.27 for day scholars and 0.64 for hostellers, which is not significant. However, a study reported that 68% of the students using various substances. Out of these, 138 were males and 66 females. The common substance used by the students was tobacco products (n=124, 41.4%) followed by sedatives (n= 44, 14.7%) and alcohol (n=20, 6.7%). Out of 152 students residing in hostels, 91 were using substances compared to 63 out of 148 day scholars<sup>31</sup>.

An investigation designed to examine the role of gender and residence on the mental health of college students suggests that girls have many mental disorders such as mood, Anxiety, depression and eating disorders<sup>32</sup>. In the hostel students may face the problems within the hostel as well as in the college because of lack of satisfactory support. Fresh Hostel students indicated more depressive symptoms<sup>33</sup>. Hosteller shows more adjustment problems than day scholars<sup>34</sup>.

According to hypotheses 2 it is expected that there will be a positive relationship between Substance Use and Depression among day scholar and hostellers. The correlation value for day scholars came out to be 0.19 in comparison to 0.42 for hostellers, which is not significant. According to the studies, substance use has been linked to some kind of emotional distress prior to consumption<sup>35</sup>. In a sample of young Americans, Shedler and Block observed that marijuana users had more emotional problems during childhood. In the same vein, in a 5-year longitudinal study of adolescents, Lerner and Vicary observed the relation between a difficult temperament, including frequent negative moods and social isolation, and the initiation and continuance of substance use. Moods and negative responses to isolation by difficult children could be similar to the

depression and social alienation often expressed by substance users<sup>36</sup>.

Ramana<sup>37</sup> examined the prevalence of depression among girls of residential college hostels. The sample consists of 315 students pursuing intermediate, graduate and postgraduate education. The major findings of the study indicate that depression among girl students seems to be dependent on the course they are studying and the back background from which they have come. The depressed students experience more self-pity and loneliness and have more adjustment problems related to emotions, health, academic matters and have more adjustment problems related to emotions, health, academic matters and social situations than non depressed students. As a result they are more prone to substance use and abuse.

A study showed that more proportion of male students had depression than female students. But, the highest mean depression score found among females and lowest mean depression score found among males. This difference in proportion of depression among respondent according to gender in this study was not statistically significant. The findings was in contrast to the findings of other studies where they found rates of depression among female hostel students two times higher as shown by significantly more than their male counterpart as shown by other studies. Male students in our study had more depressive symptoms, which may be due to their more competitiveness and future planning, less adjustment in the hostel atmosphere as the study found that male hostellers had more mean BDI score than day scholars.

Hypotheses 3 stated that there will be a positive relationship between Eating Disorders and Depression among day scholar and hostellers. The correlation came out to be 0.40 for day scholars and 0.63 for hostellers, which is not significant. According to a study, the anxiety and depression scores were significantly more in female students as compared to the male students. Among the females the anxiety scores were more in female hostellers than their male counterparts. Correlation studies showed only a significant correlation between BMI, anxiety and depression scores in female hostellers<sup>38</sup>.

Perrin<sup>39</sup>, examined the impact of thinness-emphasizing and thinness-promoting messages disseminated by mass media and running specific media, and how those messages affected disordered eating among female collegiate students. Multiple psychological, environmental, and sociological factors combine in the development of low self-esteem, which is widely regarded as the dominant premorbid personality trait<sup>40</sup>. Depression or other forms of psychopathology, disturbed family relationships, and adverse experiences may also trigger its onset<sup>41</sup>. Hostellers are already more prone to depression and eating disorders, and media utilizes that influence to perpetuate the problem rather than to prevent or mitigate it<sup>42</sup>.

Hypotheses 4 stated that the tendency of Eating Disorders would be high among hostellers as compared to day scholars. The t-ratio value for eating disorders came out to be 0.08. However, the result is not significant. But the direction of the mean indicates that hostellers (mean=24.02) are high on eating disorders as compare to the day scholars (mean=21.31). A study on women aged 20-25 years and residing in professional college hostels succeeded in finding suspected cases of Eating Disorders. The study was conducted in professional college hostels where lifestyle of women has an impact on their perceptions of appearance, their eating habits, and schedule<sup>43</sup>.

The Multi-Service Eating Disorders Association (MEDA) cites that 15% of women 17 to 24 have eating disorders, 40% of female college students have eating disorders, 91% of female college students have attempted to control their weight through dieting. According to one study on college student eating disorders, 5% to 20% of college females and 1% to 7% of college males have eating disorders<sup>44</sup>.

In a survey of 185 female students on a college campus, 58% felt pressure to be a certain weight, and of the 83% that dieted for weight loss, 44% were of normal weight. 91% of women surveyed on a college campus had attempted to control their weight through dieting, 22% dieted often or always, 6% report onset of eating disorder by age 20, 43% report onset between ages of 16 and 20, Anorexia is the third most common chronic illness among adolescents, 95% of those who have eating disorders are between the ages of 12 and 25, 25% of college-aged women engage in bingeing and purging as a weight-management technique. Hoteliers are much more likely than men to develop an eating disorder because of their dissatisfaction, irritability, hopelessness, lifestyle, personality, beliefs, distance from home etc.

Hypotheses 5 expected that the tendency of Substance Use would be high among the hostellers as compared to day scholars. The t-ratio value for

substance use came out to be 2.08\* which is significant at 0.05 level. The review of literature supports the obtained results. Jensen and Overgaard<sup>45</sup> reported that as compared to boarders, hoteliers bear high risk of adapting unhealthy habits. Research findings had proved that there is a positive association between factors relating to residential condition, status and children's unhealthy personality.

Terry<sup>46</sup> conducted study on hostel upbringing on personality and adjustment activities and found that environmental aspect of a hostel has an effect on the adjustment skills and ability. The effect of homesickness on mental processes, results into symptoms such as loss of attentiveness, loss of interest, loneliness. The easy availability of substances can increase the tendency of misuse. So the hostellers are more prone to substance use due to factors like availability of resources, lack of constant check, adjustment problems, competition, distant parenting etc.

Hypotheses 6 expected that the tendency of Depression would be high among hostellers as compared to day scholars. A study showed that hostellers had more depressive symptoms, reason of which might be due to the quality of food in the hostels, lack of entertainment, feeling of loneliness. The most common reasons for students misusing drugs were peer pressure (96%), academic stress (90%), curiosity/for experimentation (89%) and "to get high" (88%), family conflicts, school and mental problems (40%) . Of note, not only was academic stress the second most commonly cited reason, it was also the second most common reason deemed to justify drug intake<sup>47</sup>.

The main problem of students related to their mental health are depression, bipolar disorder, eating disorders and addictions, primarily to Drugs or alcohol and well being. Mchlennan<sup>48</sup> reported that students have higher levelsof anxiety and depression than general communities. College students are at an increased risk of development disadvantage and significant issue in college and universities<sup>49</sup>. Hostel rules and regulation affect the student physical and mental health. College hostel students show higher levels of Perceived stress, depression and anxiety, high level of perceived stress is responsible to poor adjustment in academic campus and interpersonal relations<sup>50</sup>.

#### **IMPLICATION OF THE PRESENT STUDY**

In the present study, we have ascertained the prevalence of eating disorders, substance abuse and depression among undergraduate girls. While there are certainly growing concerns over other mental health issues affecting college students today the prevalent issues of depression, anxiety, suicide, eating disorders, addiction, substance use and abuse need more awareness. It is important to take mental

health seriously and to seek help if you think if at risk. The students need to be guided properly in order to channelize their energies in a constructive. Parents and teachers should make sure that educational years of adolescents are free from stress and emotional tensions, and should encourage them for the best of their potentials. So, proper emphasis is needed to make the adolescent emotionally intelligent, develop a sense of coherence and have a sound psychological well being. Being a college student can be a difficult balancing act. It is easy to get weighed down with the pressures of academics, social life, and choosing a career. The first step towards change is awareness and the second step is acceptance. The key to growth is the introduction of higher dimensions of consciousness into our awareness. So, proper guidance is needed to reduce the prevalence rate of depression, eating disorders and substance use among college students to develop a healthy lifestyle and psychological well being.

## REFERENCES

- Tartakovsky, M. S. It's Time to Talk about Eating disorder Myths and Facts. PsychCentral, 2011. Retrieved from [www.psychcentral.com/weightless/2010/02/neda-week-its-time-to-talk-about-eating-disorder-myths-and-facts](http://www.psychcentral.com/weightless/2010/02/neda-week-its-time-to-talk-about-eating-disorder-myths-and-facts).
- American Psychiatric Association (APA). Let's Talk Facts About Eating Disorders. 2005. Retrieved from [www.healthyminds.org/Document-Library/Brochure-Library/Eating-Disorders.aspx](http://www.healthyminds.org/Document-Library/Brochure-Library/Eating-Disorders.aspx).
- [www.nedc.com.au/eating-disorders-explained](http://www.nedc.com.au/eating-disorders-explained).
- National Institute for Clinical Excellence (NICE). Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa, and binge eating disorder. London: British Psychological Society. 2004.
- Wonderlich SA, Lilienfeld LR, Riso LP, Engel S, Mitchell JE. Personality and anorexia nervosa. *International Journal of Eating Disorders*, 2005; 37:S68-S71
- [www.nlm.nih.gov/health/topics/eating-disorders](http://www.nlm.nih.gov/health/topics/eating-disorders).
- Steiner H, Lock J. Anorexia nervosa and bulimia nervosa in children and adolescents: a review of the past ten years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1998; 37: 352-359.
- Faseb, J., Harris. R.B. Role of set-point theory in regulation of body weight, 1990; 4(15): 3310-3318.
- Dokken, B., Shuen, T. The physiology of body weight regulation: Are we too efficient for our own good. *Diabetes Spectrum*, 2007; 20(3): 166-170.
- Fairburn, C. G., Cooper, Z., Bohn, K., Doll, H. A., Palmer, R. L. The severity and status of eating disorder : Implications for DSM-V. *Behaviour Research and Therapy*, 2007; 45(8):1705-1715.
- Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). American Psychiatric Association. 2013.
- Dore, G., Hulse, J., White, G. Women and substance abuse. Treatment of alcohol and drug problems. Oxford University press, 2002 ; 289-309.
- Taylor, D. R., Fergusson, D. M., Milne, B. J., Horwood, L. J., Moffitt, T. E., Sears, M. R., Poulton, R. A longitudinal study of the effects of tobacco and cannabis exposure on lung function in young adults. *Addiction*, 2002; 97:1055-1061.
- Gregory, T.C., Zumbrennen, C., Morrill, S., Sullivan, M., Mayer, D. Psychoactive substances and the political ecology of mental distress. *PMCID*, 2012; 9:4.
- Khantzian, E. J. An ego- self theory of substance dependence; a contemporary psychoanalytical perspective, in *Theories on Drug abuse*. National Institute on Drug Abuse, 1980.
- Gjeruldsen, S., Myrvang, B., Opjordsmoen, S. Risk factors for drug addiction and its outcome. A follow-up study over 25 years. *Nord J Psychiatry*. 2003; 57: 373-376.
- Milkman, H., Frosch, W. A. On the preferential abuse of heroin and amphetamine. *Journal of Nervous and Mental Disease*, 1973; 156: 242-248.
- Lettieri, D. J. Predicting Adolescent Drug Abuse: A Review of Issues, Methods and Correlates. Rockville, Md.: National Institute on Drug Abuse, 1975.
- [www.scribd.com/doc/127855141/56569393-Drug-Abuse](http://www.scribd.com/doc/127855141/56569393-Drug-Abuse).
- Sarokhani, D., Delpisheh, A., Veisani, Y., Roholla, E. Prevalence of Depression among University Students: A Systematic Review and Meta-Analysis Study. *Depression Research and Treatment*, 2013;13: 115-122
- Frotani, M. Depression in students of higher education centers, *Iranian Journal of Nursing Research*, 2005;18(41):13-2.
- Carthy, M. The thin ideal, depression, and eating disorders in women. *Behavioral Research and Therapy*, 1990; 28: 205-218.
- Kumaraswamy, N. Academic stress, anxiety and depression among college students- A brief Review. *International Review of Social Sciences and Humanities*, 2013; 5(1): 135-143.
- Dixon, S. K., Kurpius, S. E. R. Depression and college stress among university undergraduates, *Journal of College Student Development*, 2008; 49(5): 412-424.
- Hoerr, S. L., Bokram, R., Lugo, B. Risk for disordered eating relates to both gender and ethnicity for college students. *Journal of the American College of Nutrition*, 2002; 21(4): 307-314.
- Lawrence, V., Murray, J., Banerjee, S, Turner, S. Concepts and Causation of Depression: A Cross-Cultural Study of the Beliefs of Older Adults. *The Gerontologist*, 2006; 46(1): 23-32.
- Thompson, K. S., Fox, J. E. Post-partum depression: A comprehensive approach to evaluation and treatment. *Mental Health in Family Medicine*, 2010; 7: 249-257.
- Jarets, P. Eating disorders and depression. *Public Health Service's Office in Women's Health, Eating Disorders Information Sheet*, 2005; 7(2): 159-165.
- Johnson, J. G., Cohen, P., Kasen, S., Brook, J. S. Eating disorders during adolescence and the risk for physical and mental disorders during early adulthood. *Archives of General Psychiatry*, 2002; 59: 545-552.
- Johnson, J. G., Kotler, L. Psychiatric disorders associated with risk for development of eating disorders during adolescence and early adulthood. *Journal of Consulting and Clinical Psychology*, 2002; 70: 1119-1128.
- Das Gupta, R., Guest, J. F. Annual cost of bipolar disorder to UK society. *Br. J. Psychiatry*, 2002;180: 227-233.
- [www.mentalhealth.org.uk](http://www.mentalhealth.org.uk).
- [www.nlm.nih.gov/news/science/science-news-about-depression.shtml](http://www.nlm.nih.gov/news/science/science-news-about-depression.shtml).

34. Garner G. The eating attitudes test: Psychometric features and clinical correlates. *Psychological Medicine*, 1982; 12: 871-878.
35. Skinner, H. The Drug Abuse Screening Test. *Addictive Behaviors*, 1982; 7: 363– 371
36. Skinner, H. A. Assessment of substance abuse: Drug Abuse Screening Test. *Encyclopedia of drugs, alcohol and addictive behavior*, 200.
37. Beck, A.T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961) An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561-571.
38. Beck, A. T., Steer, R.A., & Garbin, M.G. (1988) Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8(1), 77-100.
39. Kalsoom, E. U., Azeemi, M. M. H., Farid, K. Substance use among students of professional institutes of khyber paktunkhwa. *J Postgrad Med Inst*, 2014; 28(1): 53-57.
40. Mishra, s., Jha, M. Role of gender and residence on mental health. *Journal of Humanities and Social Sciences*, 2015; 20(3): 51-55.
41. Kajavinthan, K. Depression among fresh college Hostellers During pre and post semester. *International Journal of Scientific Research Publications*, 2013;3 (1):1-3.
42. Visweswari, B., Reddy, Y. A study of adjustment problems of IX class students in relation to certain Factors. *International Journal of Advance Research*, 2014; 2 (1): 436-468.
43. Ramana, K.V. Depression among girls in residential college hostels. *Journal of Indian psychology*, 2007; 25(2): 84-92.
44. Deborah, G., Thomson, D., Beach, C. Depressive symptoms in medical students and residents: A multi-school study. *Journal of association of American Medical colleges*, 2009; 84 (2): 236-41.
45. Bassi, R., Sharma, S., Kaur, M. A study of correlation of anxiety levels with body mass index in new MBBS students. *National Journal of Physiology, Pharmacy and Pharmacology*, 2013;4(3): 208-212.
46. Perrin, A. Effects of media messages on disordered eating development among female collegiate distance runners, 2010.
47. Seguin, p., Manion, I., Cloutier, p., McEvoy, L., Cappelli, M. Adolescent depression, family psychopathology and parent/child relations: A case control study. *PUBMED*, 2003; 12(1): 2-9
48. Jugale, P. V., Pramila, V., Murthy, A., Rangat, S. Oral Manifestations of Suspected Eating Disorders among Women of 20-25 Years in Bangalore City, India, *Journal of Health Popul Nutr*. 2014;32(1): 46-50.
49. Shafiq, M., Shah, M., Saleem, A., Siddiqi, M. T., Naqvi, H. Perceptions of Pakistani medical students about drugs and alcohol: a questionnaire-based survey *PMCID*, 2006; 1: 31.
50. Dyson, R., Rank, K. Freshmen adaptation to university life: depressive symptoms, stress and Coping. *Journal of Clinical Psychology*, 2008; 62: 131-144.