International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Generalized Anxiety Disorder, Depression and Eating Disorders among High School Students in Aizawl, Mizoram

Lalrinhlui[1], Zokaitluangi[2], Gitumoni Konwar[3]

[1]Lalrinhlui, Ph. D Scholar (Nursing), Department of Clinical Psychology, Mizoram University, Aizawl, Mizoram, India.
[2]Zokaitluangi, Professor & Dean, School of Medical & Paramedical Sciences, Mizoram University, Aizawl, Mizoram, India.
[3]Gitumoni Konwar, Team Lead, Jhpiego, India (Johns Hopkins University Affiliate).

ABSTRACT
The study aimed to determine the level of Generalized Anxiety Disorder, Depression and Eating Disorders among High School Students in Aizawl City, 80 female and 80 male high school students who had equally matched demographic variables were selected from different schools located in Aizawl City using purposive sampling procedures, age range between 12 to 17 years of age served as a sample. The study used (1) the Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006), (2) the Patient Health Questionnaire (PHQ; Spitzer et al, 1999), and (3) the Eating Disorder Examination (EDE; Fairburn & Cooper 1993; Fairburn et al. 2008) for the collection of data. Results revealed that Female had a higher GAD, Depression and eating disorders than male students; there was a significant positive relationship between GAD, Depression and Eating Disorders; and GAD and Depression had a significant prediction on eating disorders among the samples. The results may be interpreted as high school students are in much need of psychological care as one mental health problem may have comorbidity with other mental problems.

Keywords: anxiety, depression, eating disorder, female, male.

1. INTRODUCTION

Mental health is a major concern all over the globe as rightly said by Dr. Brock Chisholm, the first Director-General of the World Health Organization, that “without mental health, there can be no true physical health” (Kolappa et al., 2013). About 14% of the global burden of disease is attributed to neuropsychiatric disorders. According to WHO, one in seven 10-19-year-olds experiences a mental disorder, accounting for 13% of the global burden of disease in this age group (WHO, 2021). Adolescents with mental health conditions are in turn particularly vulnerable to social exclusion, discrimination, stigma (affecting readiness to seek help), educational difficulties, risk-taking behaviours, physical ill-health and human rights violations (WHO, 2021). Emotional disorders that commonly emerge during adolescence are depression or anxiety, adolescents with emotional disorders can also experience excessive irritability, frustration or anger. Symptoms can overlap across more than one emotional disorder with rapid and unexpected changes in mood and emotional outbursts, and emotion-related

physical symptoms such as stomach ache, headache or nausea.

Anxiety is the ninth leading cause for adolescents aged 15-19 years and sixth for those aged 10-14 years (WHO, 2021). Generalized Anxiety Disorder (GAD) is an excessive anxiety and worry about a range of concerns (e.g., world events, finances, health, appearance, activities of family members and friends, work, school) accompanied by such symptoms as restlessness, fatigue, impaired concentration, irritability, muscle tension, and disturbed sleep. For a formal diagnosis of GAD, the worry is often experienced as difficult to control, and the various symptoms that accompany the worry and anxiety occur on more days than not for a period of 6 months or more.

Depression is the fourth leading cause of illness and disability among adolescents aged 15-19 years and fifteenth for those aged 10-14 years (WHO, 2021). Depression involves a sadness of mood or loss of pleasure or interest in activities for long periods of time. Depression is a negative affective state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency that interferes with daily life. Various physical, cognitive, and social changes also tend to co-occur, including altered eating or sleeping habits, lack of energy or motivation, difficulty concentrating or making decisions, and withdrawal from social activities.

Eating disorders commonly emerge during adolescence and young adulthood that affect females more commonly than males, it includes anorexia nervosa, bulimia nervosa, binge eating disorders and other harmful eating behaviours such as restricting calories or binge eating and often co-exist with depression, anxiety and/or substance misuse. Eating Disorders are any disorder characterized primarily by a pathological disturbance of attitudes and behaviors related to food, including anorexia nervosa, bulimia nervosa, and binge-eating disorder. Other eating-related disorders include pica and rumination, which are usually diagnosed in infancy or early childhood.

Major risk factors for suicide are depression, eating disorders, harmful use of alcohol, abuse in childhood, stigma against help-seeking, barriers to accessing care and access to means, and communication through digital media about suicidal behaviour is an emerging concern for this age group.

Several researchers highlighted that the common mental illness found in high school students are depression, anxiety, substance abuse, attention deficit hyperactive disorder, conduct disorder and eating disorder, and their relation to physical health. Emotional disorders can profoundly affect areas like schoolwork and school attendance, and social withdrawal can exacerbate isolation and loneliness may lead to suicide. Keeping in view the serious nature of these mental disorders, and the dearth of comprehensive studies in this regard particularly in this study settings, the current study was planned which aims to study depression, anxiety, and eating disorder. The study targeted high schools as they are a major influence on the growth and development of the minds of the students, thereby providing an ideal setting to carry out such a study.

Objectives: The study aims to study the level of General Anxiety Disorder, Depression and Eating Disorders among High School Students, and has the following objectives:

1. To examine the applicability of ((1) the Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006), (2) the Patient Health Questionnaire (PHQ; Spitzer et al, 1999), and (3) the Eating Disorder Examination (EDE; Fairburn & Cooper 1993; Fairburn et al. 2008) to the target population.
2. To discern any significant difference between female and male High School students in General Anxiety Disorder, Depression and Eating Disorders.
3. To determine any significant relationship between Generalized Anxiety Disorder, Depression and Eating Disorders variables.

4. To study any significant prediction of Anxiety and Depression on Eating Disorders among the samples.

Hypothesis: In consistency with the objectives of the study, the following hypotheses were framed for the present study:

1. The (1) the Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006), (2) the Patient Health Questionnaire (PHQ; Spitzer et al, 1999), and (3) the Eating Disorder Examination (EDE; Fairburn & Cooper 1993; Fairburn et al. 2008) will have applicability to the targeted population.
2. It was expected that females will have higher anxiety, depression and eating disorders than male students.
3. There will be a positive significant relationship between Generalized Anxiety Disorder, Depression and Eating Disorders variables.
4. Anxiety and Depression were expected to have significant predictions on the Eating Disorders variables among the samples.

2. MATERIALS AND METHODS

Correlational research design was employed to compare male and female students on the dependent variables. The sample size was 160 students from different government and private high schools located in Aizawl City. The student comprises of 80 male and 80 female students studying class X, age range between 12-17 years and extraneous variables were controlled using demographic variables in the study. The tools used in the study were as follows:

2.1. The Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006): It is a brief measure for assessing generalized anxiety disorder. The GAD-7 is commonly used as a measure of general anxiety symptoms across various settings and populations. The GAD-7 has excellent internal consistency, and the one-factor structure in a heterogeneous clinical population was supported. GAD-7 consists of seven items measuring worry and anxiety symptoms. Each item is scored on a four-point Likert scale (0–3) with total scores ranging from 0 to 21 with higher scores reflecting greater anxiety severity. Scores above 10 are considered to be in the clinical range (Spitzer et al., 2006). The GAD-7 has shown good reliability and construct validity (Kroenke et al., 2007; Löwe et al., 2008). Scores range from 0 to 21 with higher scores indicating more severe GAD symptoms. Research has suggested that the GAD-7 is a valid screening tool for GAD in a primary care setting and for assessing its severity in clinical practice and research (Spitzer et al., 2006). The average GAD-7 score was 11.60 (SD = 5.44) in our sample.

2.2. The Patient Health Questionnaire (PHQ; Spitzer et al, 1999): The PHQ assesses 8 diagnoses, divided into threshold disorders (disorders that correspond to specific DSM-IV diagnoses: major depressive disorder, panic disorder, other anxiety disorder, and bulimia nervosa), and subthreshold disorders (disorders whose criteria encompass fewer symptoms than are required for any specific DSM-IV diagnoses: other depressive disorder, probable alcohol abuse/dependence, somatoform, and binge eating disorder). The PHQ-9 is the 9-item depression module from the full PHQ. Major depression is diagnosed if 5 or more of the 9 depressive symptom criteria have been present at least “more than half the days” in the past 2 weeks, and 1 of the symptoms is depressed mood or anhedonia. As a severity measure, the PHQ-9 score can range from 0 to 27, since each of the 9 items can be scored from 0 (not at all) to 3 (nearly every day).

2.3. The Eating Disorder Examination (EDE; Fairburn & Cooper 1993; Fairburn et al. 2008): It is a semi-structured, investigator-based interview that assesses the cognitive and behavioural symptoms associated with eating disorders (Fairburn and Cooper 1993; Fairburn et al. 2008). Cognitive symptoms (e.g.,

dissatisfaction with shape, dietary restraint) are assessed for the past 28 days and are rated on a 7-point Likert scale from 0 to 6, with higher scores representing more severe pathology.

After obtaining the required permission from the school authorities, the study samples were selected using purposive sampling procedure. The administration of the tool for collection of socio demographic datasheet and conduction of the psychological scales was done under strict observance of the manuals of the test and APA code of ethics.

3. RESULTS

3.1. Applicability of (1) The Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006), (2) the Patient Health Questionnaire (PHQ; Spitzer et al, 1999), and (3) the Eating Disorder Examination (EDE; Fairburn & Cooper 1993; Fairburn et al. 2008) to the targeted population.

Table-1: Psychometric Properties of the Generalized Anxiety Disorder Assessment, the Patient Health Questionnaire and the Eating Disorder Examination.

Statistics	GAD	Depression	Eating Disorder
Mean	21.17	29.14	26.32
Std. Deviation	3.12	4.05	4.13
Kurtosis	-0.68	-0.67	0.72
Skewness	-0.72	-0.69	0.76
Reliability (Alpha)	.67	.64	.68
Test of Homogeneity of Variances	.19	.16	.18

The results provided that skewness values and Kurtosis values were less than 1.0 (+/-) which conveyed that the data had a normality. Alpha Reliability result showed good reliability as all were higher than .60, reliability on GAD was .67, Depression was .64 and Eating Disorder was .68. The homogeneity of variance was also checked and the scales showed acceptable homogeneity (GAD = .19, Depression = .16 and Eating disorder = .18). The overall results showed the applicability of the tests in the targeted population and also highlighted the appropriateness to parametric statistics for further analysis, and the result accepted hypothesis no-1.

3.2. Discerning any significant difference between female and male high school students in General Anxiety Disorder, Depression and Eating Disorders.

Table-2: Differences between female and male high school students.

Four comparison groups	Stats	GAD	Depression	Eating Disorder
Female high school students	Mean	23.25	31.23	28.16
Male high school students	Mean	19.09	27.05	24.48
t-test between female and male high school students		2.34**	1.97*	2.51 **

The result in Table -2 displayed that female and male high school students on GAD was (M=23.25; 19.09; t=2.34; p<.01), on depression it was (M=31.23; 27.05; t=1.97; p<.01) and Eating Disorder (M=28.16; 24.48; t=2.51; p<.01) and significant at .01 level. The result has accepted hypothesis no 2, which was that females were expected to have higher anxiety, depression and eating disorders than male students.

3.3. Determining any significant relationship between Generalized Anxiety Disorder, Depression and Eating Disorders variables.

Table- 3: Relationship between Generalized Anxiety Disorder, Depression and Eating Disorders variables.

Dependent Variables	GAD	Depression	Eating Disorder
GAD	1	.36**	.39**
Depression		1	.41**
			**= significant at the 0.01 level (2 tailed)

The results showed that GAD had a positive significant relationship with Depression (r=.36; p<.01) and Eating disorder (r=.39; p<.01) significant at .01 level, and which accepted hypothesis no 3 of the study, which indicates a positive significant relationship between Generalized Anxiety Disorder, Depression and Eating Disorders variables.

3.4. Significant prediction of Anxiety and Depression on Eating Disorders among the samples.

Table-4: Prediction of Generalized Anxiety Disorder and Depression on Eating Disorders.

Predictor	*Criterion*	*R Square*	*F Change*	*df*	*Sig. F Change*	*Durbin-Watson*
GAD	*Eating Disorders*	0.21	68.73	1/187	0.00	1.09
Depression		0.23	64.62	1/187	0.00	0.98

The simple regression analysis results showed that GAD predicted Eating Disorders at 21% whereas Depression predicted 23% on eating disorders, and Durbin Watson was lower than 2.0 (DW=1.09 & 0.98) indicating that there was no autocorrelation detected in the sample, and the results suggested accepting the hypothesis no-4 whereby GAD and Depression were expected to have significant predictions on the Eating Disorders variables among the samples.

4. DISCUSSION

In a study of elementary school students and their parents of the relation between anxiety and depressive symptoms in children, high levels of anxiety symptoms at one point in time predicted high levels of depressive symptoms at subsequent points in time even after controlling for prior levels of depression symptoms which support that anxiety leads to depression in children and adolescents (Cole et al., 1998). There are a variety of syndromes within the spectrum of anxiety and depression; there may be symptoms of depression and anxiety which represent different external manifestations of a more basic underlying cause; that one condition may predispose to the other; that the association may be due to artifactual definitional overlap, particularly since the instruments used to measure depression and anxiety share so many items (Frances et al.,1992).

Emma, P. A., & Glenn, W. B. (2008) reviewed researches investigating the comorbidity between eating disorders and anxiety disorders. The study suggested that eating disorders and anxiety disorders might share common aetiological factors, and that these factors can increase an individual's susceptibility to either disorder.

Patterns of comorbidity and family history suggested elevated rates of anxiety disorders in both eating disordered probands and their family members. Behavioral and pharmacological treatments known to be effective in the anxiety disorders have also been applied successfully to the treatment of eating disorders.

This evidence converges to suggest an association between eating and anxiety disorders (Bulik, 1995). Of all the anxiety disorders diagnosed, social phobia was most frequently diagnosed (42%) followed by post-traumatic stress disorder (26%), generalised anxiety disorder (23%), obsessive–compulsive disorder (5%), panic/agoraphobia (3%) and specific phobia (2%). It was also found that 13.5% of women presenting for anxiety treatment also met criteria for a comorbid eating disorder. The results of this study suggest that the prevalence of eating and anxiety disorder comorbidity is high (Swinbourne et al., 2012). Anorexia nervosa and bulimia may be closely related to major affective disorder taking into consideration the results of studies of family history, long-term outcome, response to biological tests, and treatment response (James et al., 1983).

Forty percent of patients admitted to an inpatient Eating Disorders Program and diagnosed as having bulimia with depression attempted suicide (Viesselman & Roig, 1985). There are no gender differences in depression rates in prepubescent children, but, after the age of 15, girls and women are about twice as likely to be depressed as boys and men. The causes of depression are the same for girls and boys, but these causes become more prevalent in girls than in boys in early adolescence and girls are more likely than boys to carry risk factors for depression even before early adolescence (Nolen-Hoeksema & Girgus, 1994). Men coped with depression by increasing their sports activity and consumption of alcohol and women through emotional release and religion, also women felt the effects of depression in their quality of sleep and general health, whereas men felt it more in their ability to work (Angst et al., 2002).

Retrospective data indicate that at age 6, females are already twice as likely to have experienced an anxiety disorder as are males (Lewinsohn et al., 1998). Anxiety disorders are not only more prevalent but also more disabling in women than in men (McLean et al., 2011). There are definitely gender differences in anxiety in respect to expression of physiological hyperarousal, catastrophic cognitions and a general level of anxiety sensitivity in a nonclinical population (Armstrong & Khawaja, 2002). For both generalized anxiety disorder and social anxiety disorder symptoms, girls were significantly more likely than boys to be in trajectory classes characterized by moderate or high initial symptoms that subsequently decreased over time (Ohannessian et al., 2017).

The above studies supported the findings of this study that females were expected to have higher anxiety, depression and eating disorders than male students; there was a positive significant relationship between Generalized Anxiety Disorder, Depression and Eating Disorder variable; GAD and Depression had significant predictions on the Eating disorders variables and the Generalized Anxiety Disorder Assessment (GAD-7: Spitzer et al., 2006), the Patient Health Questionnaire (PHQ; Spitzer et al, 1999), and the Eating Disorder Scale (ED; Fairburn & Cooper 1993; Fairburn et al. 2008) does have an applicability to the targeted population.

Limitation: The present study has been conducted and well met the objectives of the study but not free from limitation such as:

1. Many more variables could be attempted with larger samples.
2. The study was confined only to high schools located in Aizawl city.
3. The sample size was limited only to 160 students.

Significance/implications of the study

Education:

1. The study may help in creating awareness about the common mental illness of adolescents such as GAD, Depression and Eating disorders amongst the educators.

2. The study may be used as a basis for providing in-service education for the teachers, with an emphasis on GAD, Depression and Eating disorders.
3. Counselling services may be planned using this study as a guideline.

Administration:

1. The findings of this study may aid in the curriculum development and implementation, with a view to promote mental health and prevent of common mental illness.
2. Concerned administrators may develop policies and procedures to ensure that timely help can be given to students/teachers/parents pertaining to common mental illness of adolescents such as GAD, Depression and Eating disorders, as they have a significant relationship with each other.

Research:

1. The present study contributes to the body of knowledge for nursing and other allied health sciences.
2. The study will provide an opportunity for further research using comparative, experimental, and action research on the areas of mental health, mental illness and school health services.
3. The study will aid the health care researchers to do collaborative researches in the same field.

5. CONCLUSION

The present study highlights that a significant proportion of youth has GAD, Depression and Eating Disorders, which if not corrected in time can lead to more serious mental and physical illness in an individual's life at a later stage. There is a strong need for educators, administrators and concerned citizens to identify, prepare, integrate and implement activities that help to promote health and healthy lifestyles of young people and establish mechanisms for delivery of population-based interventions along with measuring its impact. There can be severe problems that may evolve, if the condition goes unnoticed. Counselling and the continued assistance of health personnel is seen as vital in providing adequate coping skills and are therefore necessary in resolving these early predictors of distress in mid adolescence transitioning.

Acknowledgement: The authors are indebted to the participants whose involvement makes it possible to complete this study and also acknowledged the contribution of the authorities for giving permission to conduct the study.

Ethical consideration: The study was conducted with ethical consideration following the APA ethical code (2002) and approval from the Human Ethical Committee of Mizoram University (vide MZU/HEC/2022/006 dt 8.3.2022).

Declaration: We declare that this article is an original research work of Ms. Lalrinhlui under the supervision of Prof. Zokaitluangi, Dean, School of Medical and Para-Medical Sciences, Mizoram University and Prof. Gitumoni Konwar, Team Lead, Jhpiego, India (Johns Hopkins University Affiliate), and not published anywhere in any form of article or books.

REFERENCES

1. American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV.* (4th edition). American Psychiatric Association, Washington (DC).
2. American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders.* (5th Edition). American Psychiatric Association, Washington (DC).

3. Angst, J., Gamma, A., Gastpar, M., Lépine, J.P., Mendlewicz, J. & Tylee, A. (2002). Gender differences in depression. *European Archives of Psychiatry and Clinical Neurosciences*, 252, 201–209.
4. Armstrong, K., & Khawaja, N. (2002). Gender differences in anxiety: An investigation of the symptoms, cognitions, and sensitivity towards anxiety in a nonclinical population. *Behavioural and Cognitive Psychotherapy*, 30(2), 227-231.
5. Bernice, A., & John, M. W. (2004). The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology*, 95(4), 509-521.
6. Bond, J., Brooks, P., Carstairs, V., & Giles, L. (1980). The reliability of a Survey Psychiatric Assessment Schedule for the elderly. *British Journal of Psychiatry*, 137, 148–62.
7. Bulik, C. M. (1995). Anxiety disorders and eating disorders: A review of their relationship. *New Zealand Journal of Psychology*, 24(2), 51–62.
8. Cole, D. A., Peeke, L. G., Martin, J. M., Truglio, R., & Seroczynski, A. D. (1998). A longitudinal look at the relation between depression and anxiety in children and adolescents. *Journal of Consulting and Clinical Psychology*, 66(3), 451–460.
9. Fairburn, C.G., & Beglin, S.J. (1994). Assessment of eating disorders: interview or self-report questionnaire? *International Journal of Eating Disorders*, 16, 363-370.
10. Faravelli, C., Alessandra Scarpato, M., Castellini, G., & Lo Sauro, C. (2013). Gender differences in depression and anxiety: The role of age. *Psychiatry Research*, 210(3), 1301–1303.
11. Frances, A., Manning, D., Marin, D., Kocsis, J., McKinney, K., Hall, W., & Kline, M. (1992). Relationship of anxiety and depression. *Psychopharmacology*, 106 (Suppl 1), S82–S86.
12. Galderisi, S., Heinz, A., Kastrup, M., Beezhold, J., & Sartorius, N. (2015). Toward a new definition of mental health. *World Psychiatry*, 14(2), 231–233.
13. Hudson, J. I., Pope, H. G., Jr, Jonas, J. M., & Yurgelun-Todd, D. (1983). Phenomenologic relationship of eating disorders to major affective disorder. *Psychiatry research*, 9(4), 345–354.
14. Kenny, B., Orellana, L., Fuller-Tyszkiewicz, M., Moodie, M., Brown, V., & Williams, J. (2021). Depression and eating disorders in early adolescence: A network analysis approach. *The International journal of eating disorders*, *54*(12), 2143–2154.
15. Kessler, R. C., Angermeyer, M., Anthony, J. C., DE Graaf, R., Demyttenaere, K., Gasquet, I., DE Girolamo, G., Gluzman, S., Gureje, O., Haro, J. M., Kawakami, N., Karam, A., Levinson, D., Medina Mora, M. E., Oakley Browne, M. A., Posada-Villa, J., Stein, D. J., Adley Tsang, C. H., Aguilar-Gaxiola, S., Alonso, J., … Ustün, T. B. (2007). Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World psychiatry: official journal of the World Psychiatric Association (WPA)*, 6(3), 168–176.
16. Kessler, R.C. (2000). Psychiatric epidemiology: Selected recent advances and future directions. *Bull World Health Organ*, 78, 464–74.
17. Kolappa, K., Henderson, D.C., & Kishore, S.P. (2013). No physical health without mental health: Lessons unlearned? *Bull World Health Organ*, 91, 3–3A.
18. Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender differences in anxiety disorders and anxiety symptoms in adolescents. *Journal of Abnormal Psychology*, 107(1), 109–117.
19. Math, S.B., Chandrashekar, C.R., & Bhugra, D. (2007). Psychiatric epidemiology in India. *Indian Journal of Medical Research*, 126,183–92.

20. McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: Prevalence, course of illness, comorbidity and burden of illness. *Journal of Psychiatric Research*, 45(8), 1027–1035.
21. Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115(3), 424–443.
22. Nolen-Hoeksema, S., Larson, J., & Grayson, C. (1999). Explaining the gender difference in depressive symptoms. *Journal of Personality and Social Psychology*, 77(5), 1061–1072.
23. Ogorchukwu, J.M., Sekaran, V.C., Nair, S., & Ashok, L. (2016). Mental Health Literacy Among Late Adolescents in South India: What They Know and What Attitudes Drive Them. *Indian Journal of Psychological Medicine*, 38(3), 234–41.
24. Ohannessian, C.M., Milan, S. & Vannucci, A. (2017). Gender Differences in Anxiety Trajectories from Middle to Late Adolescence. *J Youth Adolescence*, 46, 826–839.
25. Pallister, E., & Waller, G. (2008). Anxiety in the eating disorders: understanding the overlap. *Clinical psychology review*, *28*(3), 366–386.
26. Piccinelli, M., & Wilkinson, G. (2000). Gender differences in depression: Critical review. *The British Journal of Psychiatry*, 177(6), 486-492.
27. Spitzer, R. L., Kroenke, K., & Williams, J. B. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *JAMA*, 282(18), 1737–1744.
28. Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine*, 166(10), 1092–1097.
29. Swets, J. A. (1988). Measuring the accuracy of diagnostic systems. *Science*, 240, 1285–1293.
30. Swinbourne, J., Hunt, C., Abbott, M., Russell, J., St Clare, T., & Touyz, S. (2012). The comorbidity between eating disorders and anxiety disorders: prevalence in an eating disorder sample and anxiety disorder sample. *The Australian and New Zealand journal of psychiatry*, 46(2), 118–131.
31. Viesselman, J. O., & Roig, M. (1985). Depression and suicidality in eating disorders. *The Journal of clinical psychiatry*, 46(4), 118–124.
32. World Health Organization. (1993), *The ICD-10 classification of mental and behavioural disorders; diagnostic criteria for research*. World Health Organization, Geneva.
33. World Health Organization. (2004). *Promoting mental health: concepts, emerging evidence, practice (Summary Report).* World Health Organization, Geneva.
34. World Health Organization. (2021). *Fact sheet - Mental health of adolescents*. World Health Organization, Geneva.
35. World Health Organization. (2021). *Mental Health of Adolescents*. World Health Organization, Geneva.