THE LEVEL OF ANXIETY DISORDER OF STUDENTS MAJORING IN PRE-SCHOOL EDUCATION AND PRIMARY EDUCATION OF DONG THAP UNIVERSITY

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Abstract

The article approaches the basic theoretical foundation of anxiety disorders, on which "Zung Self-Rating Anxiety Scale (SAS)" and "Depression Anxiety and Stress Scales (DASS- 42)" are used to measure the levels of anxiety disorder of 260 primary school and pre-school education students in Education Faculty - Dong Thap University. The research result aimed to clarify student's level of anxiety disorder, level of anxiety, depression and stress (factors impacting on anxiety disorder). Thereby, it examined the correlation between the factors of anxiety, depression and stress with student's anxiety disorder.

Keywords: *Anxiety disorder, Dong Thap University, pre-school education, primary education, student.*

MỨC ĐỘ RỐI LOẠN LO ÂU CỦA SINH VIÊN NGÀNH GIÁO DỤC MẦM NON VÀ GIÁO DỤC TIỂU HỌC, TRƯỜNG ĐẠI HỌC ĐỒNG THÁP

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Tóm tắt

Bài viết tiếp cận những cơ sở lý luận cơ bản về rối loạn lo âu, trên cơ sở đó sử dụng Thang đánh giá lo âu Zung (SAS) và Thang đánh giá lo âu, trầm cảm và stress (DASS-42) để đo lường rối loạn lo âu của 260 sinh viên ngành Giáo dục Tiểu học và Giáo dục Mầm non (tất cả các năm học) Khoa Giáo dục - Trường Đại học Đồng Tháp. Kết quả nghiên cứu nhằm làm sáng tỏ mức độ rối loạn lo âu cũng như mức độ lo âu, trầm cảm và stress (các thành tố tác động đến rối loạn lo âu) của sinh viên. Qua đó, nghiên cứu xem xét sự tương quan giữa các thành tố lo âu, trầm cảm và stress với rối loạn lo âu của họ.

Từ khóa: *Giáo dục tiểu học, giáo dục mầm non, rối loạn lo âu, sinh viên, Trường Đại học Đồng Tháp.*

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1. Introduction

"Anxiety" was described by Hippocrates (460-377 BC) as a common illness whose symptoms are the feeling spasm and shortness of breath. Anxiety is known as struggles of the mind and soul. This concept existed tens of centuries later (cited in Nguyen Thi Van, 2019, p. 6).

Charles Darwin (1809 - 1882) described "People of generations tried to flee from dangerous enemies with increasing fear and anxiety" (cited in Nguyen Thi Van, 2019, p. 6).

In 1884, Kerkgard used the term "Angest" to refer to human anxiety states. In 1886, Morel combined states of anxiety and he called them "emotional delusion"; this state is different from Hysterie and hypochondria disease. On the basis of analysis of clinical phenomenon of obsessive disorder, Freud (suggested the term "anxiety neurosis" in 1895, and he thought that the reason the patients suffered anxiety neurosis was the conflict of the unconscious mind. This S. Freud's term was widely accepted and used for a long time from the early of 20th century to the 60s of this century (cited in Nguyen Thi Van, 2019, p. 6).

In 1952, anxiety disorder was mentioned in the chapter "Mental Disorders" of DSM I with the names as "anxiety reaction" by American Psychiatric Association (APA). In 1968, the name in DSM II was changed into "anxiety neurosis" because anxiety was primarily caused by trauma, characterized by persistent anxiety resulting in panic disorder and often associated with body symptoms (Tran Nguyen Ngoc, 2019). In 1980, in DSM III, panic disorder and anxiety disorder were separated and the time for consideration of disease manifestation of symptoms should be lengthened within 1 month. Later, in DSM III- R (1987), DSM IV (1994), DSM IV-TR (2000) and DSM V (2013), the criteria of disease manifestation increased to 6 months.

In 1983, ICD-International Statistical Classification of Diseases and Related Health Problems was developed by WHO and approved by 3rd World Health Assembly in 1990 and first used by member countries in 1994. IDC- 10 is the 10th edition of International Statistical Classification of Diseases and Related Health Problems. In 1990, WHO developed and published CIDI (The Composite International Diagnostic Interview-1990): *A tool to interview and diagnose mental disorders*. This tool is used by many scientists in many countries for professional research and in people's mental health projects.

In 1997 and 1998 (Australia), a national survey research of mental health with 10641 people of over 18 years old, using CIDI, ICD-10 and DSM IV, showed that the incidence of anxiety disorder was as follows: 18-24 years old: 3.0%; 25-34 years old: 3.9%; 35-44 years old: 4.5%; 45-54 years old: 4.9%; 55-64 years old: 3.0% and ≥ 65 years old: 1.6% (cited in Tran Nguyen Ngoc, 2019, p. 16). According to a study in 130 locations in Germany with 4181 adults aged 18-65 years (1998), using the CIDI assessment (interview, general diagnosis) tool combined with the ICD diagnostic criteria-10 and DSM IV, the following incidence of anxiety disorder was: 18-24 years old: 1.0%; 25-34 years old: 0.7%; 35-44 years old: 1.5%; 45-54 years old: 2.0%; ≥ 55 years old: 2.2% (cited in Tran Nguyen Ngoc, 2019, p. 16).

In 2004, the costs for internal treatment of generalized anxiety disorder in Europe was from 2000-3000 Euro per patient for one stage of treatment and costs for treatment of other anxiety disorder was from 300-1000 Euros per patient for one stage of treatment (cited in Bui Quang Huy, 2017).

In 2014, America used DSM V to study mental health, and it announced anxiety disorder has affected 6.8% adults (3.1% of the US population). Women suffered from this disorder twice as often as men (cited in Bui Quang Huy, 2017).

According to DSM V, "Anxiety disorders include disorders that share features of excessive fear and anxiety and related behavioral disturbances. Fear is the emotional response to real or perceived imminent threat, whereas anxiety is anticipation of future threat. Panic attacks feature prominently within the anxiety disorders as a particular type of fear response. Panic attacks are not limited to anxiety disorders but rather can be seen in other mental disorders as well" (American Psychiatric Association, 2013, p.189).

"The anxiety disorders differ from one another in the types of objects or situations that induce fear, anxiety, or avoidance behavior, and the associated cognitive ideation. Thus, while the anxiety disorders tend to be highly comorbid with each other, they can be differentiated by close examination of the types of

situations that are feared or avoided and the content of the associated thoughts or beliefs" (American Psychiatric Association, 2013, p.189).

Nowadays, in addition to DSM, CIDI, IDC-10 there are many other instruments, quizzes, scales published and used widely by researchers in the field of measurement, diagnosis of anxiety disorder such as: DASS (Depression Anxiety and Stress Scales), SAS (Zung Self-rated Anxiety Scale), GAD-7 (General Anxiety Disorder-7), and so on.

Anxiety disorder is considered as a mental illness that causes harm to human health. Therefore, it has been studied actively by scientists and countries to find out solutions for effective prevention and treatment.

Until now, there is no official statistics on the number of people who are suffering anxiety disorder in Vietnam. With the approval of WHO, Vietnam's Ministry of Health uses the copyright database of ICD-10 and DSM IV, V translation (under Agency of Health Examination and Treatment) in scientific research and services of examination, diagnosis and treatment of mental diseases by the professionals. However, studies of anxiety disorder in Vietnam are still few without sufficient synchronization or investment.

For the reasons mentioned above, we decided to conduct this study investigating the level of anxiety disorder of students majoring in pre-school education and primary education in Dong Thap University.

2. Methods and Data

2.1. Zung Self-Rating Anxiety Scale (SAS)

The Zung Self-Rating Anxiety Scale (SAS) was designed by William W. K Zung

M.D (1929-1992), a professor of Psychiatry from Duke University, to quantify a patient's level of anxiety (Zung, 1971, 1974).

In 1971, Zung developed a method of scoring both the SDS and SAS that involved conversion of a total scale raw score (with a potential range of 20 to 80) to an index score with a potential range of 25 to 100. The index score is derived by dividing the sum of the values (raw scores) obtained on the 20 items by the maximum possible score of 80, converted to a decimal and multiplied by 100 (p. 376). In 1980, Zung reduced the cut-off point for clinical significance from that set in his seminal paper on the development of the SAS. Recent research has suggested that the 1980-recommended cut-off point (a raw score of 36 or an index score of 45) is lower than the ideal, and that the original 1971 cut-off (a raw score of 40; an index score of 50) produces better sensitivity and specificity figures (Debra and Ned Scott, 2020). Nowadays, SAS is a highly evaluated scale widely used to measure and identify anxiety disorder.

The SAS is a 20-item self-report assessment device built to measure anxiety levels, based on scoring in four groups of manifestations: cognitive, autonomic, motor and central nervous system symptoms. On answering the statements, one will indicate how much each statement applies to him or her within a period of one or two weeks prior to taking the test. Each question is scored on a Likert-type scale of 1- 4 (ranging from: "a little of the time", "some of the time", "a good part of the time", "most of the time"). Some questions are negatively worded to avoid the problem of set response. Overall assessment is done by a total score.

The total raw score ranges from 20-80. The raw score then needs to be converted to an "Anxiety Index" score using the chart on the paper version of the test that can be found on the link below. The "Anxiety Index" score can then be used on this scale below to determine the clinical interpretation of one's level of anxiety (Zung, 1971).

Table 1. Self-Rating Anxiety Scale (SAS 20)

Level of anxiety disorder	Normal Range	Mild to Moderate	Marked to Severe	Extreme
... Total score	20-44	45-59	60-74	75 and above

We use "Zung Self-Rating Anxiety Scale (SAS)" and "Depression Anxiety and Stress Scales (DASS-42)" to measure the level of anxiety disorder and factors affecting anxiety disorder of 130 students majoring in preschool education (21 first-year, 24 second-year, 51 third-year and 34 fourth-year), and another 130 students majoring in primary education (26 first-year, 27 second-year, 34 third-year and 43 fourth-year) of Dong Thap University.

2.2. Depression Anxiety and Stress Scales (DASS)

The Depression, Anxiety and Stress Scale were applied in order to reveal the psychological

status of the individuals. Also, this scale is used in determining the level of negative emotional states. It is developed by Lovibond, S.H. and Lovibond, P.F (1995a) and proposed by Australian Psychological Society. Several studies were published on its reliability and validity worldwide. The DASS is a well-established instrument to measure symptoms of depression, anxiety and stress in both clinical and non-clinical samples of adults (Beaufort *et al.*, 2017). Nowadays, DASS-42 has an abridged version (DASS-21) with similar functions. Both these two versions are highly evaluated by researchers and widely used in the world.

DASS, the Depression Anxiety Stress Scales (Lovibond and Lovibond, 1995a) is made up of 42 self-report items to be completed for five to ten minutes, each reflecting a negative emotional symptom (Lovibond and Lovibond, 1995b, p. 335-343). Each of these is rated on a four-point Likert scale of frequency or severity of the participants' experiences over the last week with the intention of emphasizing states over traits. These scores range from 0, meaning that the respondent believed the item "did not apply to them at all", to 3 meaning that the respondent considered the item to "apply to them very much, or most of the time". It is also stressed in the instructions that there are no right or wrong answers (Crawford and Henry, 2003). The sum of the relevant 14 items for each scale constitutes the participants' scores for each of Depression (The Depression scale has subscales assessing dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia and inertia); Anxiety (The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience of anxious affect), and Stress (The Stress scale's subscales highlight levels of non-chronic arousal through difficulty relaxing, nervous arousal and being easily upset/agitated, irritable/over-reactive and impatient) (Crawford and Henry, 2003). Evaluation results will be determined by the following classification:

Table 2. Self-Rating Scale of Depression, Anxiety, Stress (DASS 42)

Meaning	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	+28	+20	+34

3. Results and Discussions

3.1. The level of student's anxiety disorder according to SAS 20

We use Statistical Package for the Social Sciences (SPSS) statistic software to process the data and verify some necessary values. The results are shown in the following table:

Table 3. The level of students' anxiety disorder according to SAS 20 result

Academic level	Level of anxiety disorder	Normal Range		Mild to Moderate		Marked to Severe		Extreme	
	Field	No.	%	No.	%	No.	%	No.	%
First-year	Pre-school	19	14.69	2	1.57	0	0.00	0	0.00
	Primary school	23	18.11	0	0.00	0	0.00	0	0.00
Second-year	Pre-school	19	14.69	2	1.57	0	0.00	0	0.00
	Primary school	26	20.47	1	0.87	0	0.00	0	0.00
Third-year	Pre-school	39	30.70	12	9.44	0	0.00	0	0.00
	Primary school	29	22.83	5	3.94	0	0.00	0	0.00
Fourth-year	Pre-school	23	18.11	11	8.66	0	0.00	0	0.00
	Primary school	39	30.70	4	3.15	0	0.00	0	0.00
	First-year	42	16.53	2	0.79	0	0.00	0	0.00

Total by school-year	Second-year	45	17.71	3	1.18	0	0.00	0	0.00
	Third-year	68	26.77	17	6.69	0	0.00	0	0.00
	Fourth-year	62	24.40	15	5.90	0	0.00	0	0.00
Total by gender	Male	3	1.18	0	0.00	0	0.00	0	0.00
	Female	214	84.25	37	14.57	0	0.00	0	0.00
Total		**217**	**85.43**	**37**	**14.57**	**0**	**0.00**	**0**	**0.00**

(During the process of SAS 20 result evaluation, we see that 03 votes of second-year preschool students and 03 votes of primary education students are not valid, so they are excluded from the processing of result; therefore, the remaining SAS 20 votes of 127 (pre- school) and 127 (primary school) are processed.

From the results in Table 3, we realize that:

The level of students' anxiety disorder in preschool and primary education - Dong Thap University is rather high: 14.57%, mainly from Mild to Moderate Anxiety Levels.

The level of anxiety disorder manifested in female students is: 14.57% and 0.00% of male students (due to the typical structure of pre-school and primary education with the number of the female students higher than that of the male).

The level of anxiety disorder of pre-school students is higher than that of primary education students: 10.62% > 3.94%.

In all students' academic levels of Preschool and Primary Education, there are always students with anxiety disorders. Among them, the level of anxiety disorder of third-year students is the highest (6.69%), followed by the fourth-year (5.90%), while the first-year is lowest: 0.79%.

3.2. The student's levels of Depression, Anxiety and Stress according to DASS-42

We carry out DASS-42 (Depression Anxiety and Stress Scales) to measure the level of three factors: 1) Depression; 2) Anxiety and 3) Stress, which are the factors affecting students' anxiety disorder. The results are shown in the following table:

Table 4. The student's levels of Depression, Anxiety and Stress

Meaning \ Level		Normal		Mild		Moderate		Severe		Extremely severe	
	Field	No.	%	No.	%	No.	%	No.	%	No.	%
Depression	Pre-school	78	60.00	21	16.15	18	13.85	8	6.15	5	3.85
	Primary school	96	73.85	16	12.31	12	9.23	4	3.07	2	1.54
Total Depression		174	66.92	37	14.23	30	11.55	12	4.61	7	2.69
Anxiety	Pre-school	56	43.07	14	10.77	36	27.69	12	9.23	12	9.23
	Primary school	75	57.69	21	16.15	15	11.54	15	11.54	4	3.07
Total Anxiety		131	50.38	35	13.46	51	19.62	27	10.38	16	6.15
Stress	Pre-school	81	62.31	27	20.77	12	9.23	8	6.15	2	1.54
	Primary school	91	70.00	19	14.62	12	9.23	7	5.38	1	0.77
Total Stress		**172**	**66.15**	**46**	**17.69**	**24**	**9.23**	**15**	**5.77**	**3**	**1.15**

From the Table 4, we realize that:

The number of students suffering depression is at a fairly high level (33.06%), including: 14.23% of Mild Level (need to monitor regularly), 11.55% of Moderate Level (need advice of psychotherapists), 4.61% of Severe Level (need to be examined at mental/ psycho-clinical facilities for therapy), and 2.69% of extremely severe level (need to be treated at mental/ psycho-clinical facilities).

The number of students suffering Anxiety is at a high level (49.61%), including: 13.46% of Mild Level (need to monitor regularly), 19.62% of Moderate Level (need advice of psychotherapists), 10.38% of Severe Level (need to be examined at mental/ psycho-clinical facilities for therapy), and 6.15% of extremely severe level (need to be treated at mental/ psycho-clinical facilities).

The number of students suffering stress is at

a fairly high level (33.84%), including: 17.69% of Mild Level (need to monitor regularly), 9.23% of Moderate Level (need advice of psychotherapists), 5.77% of Severe Level (need to be examined at mental/ psycho-clinical facilities for therapy), and 1.15% of extremely severe level (need to be treated at mental/ psycho-clinical facilities).

The results in Table 4 can be demonstrated in the following chart:

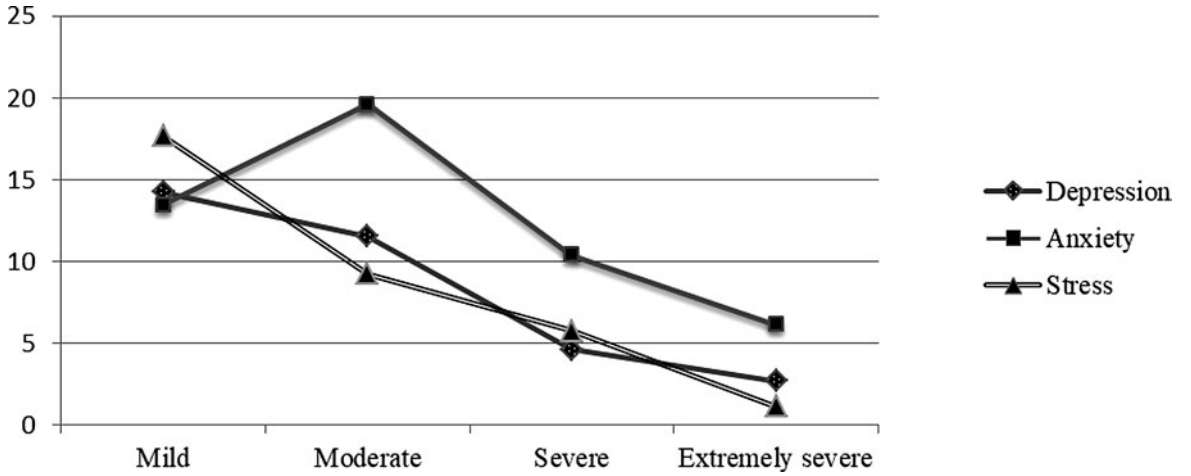

Figure 1. The student's levels of Depression, Anxiety and Stress

From the results in Figure1, it can be seen that Anxiety level is highest while Level of Depression and Level of Stress seem lower and almost alike.

We calculated the correlation level between 3 factors (Depression, Anxiety and Stress) with students' anxiety disorder to see the effect of these factors on student's anxiety disorder. The results are shown in the following table:

Table 5. Correlation among 3 factors (Depression, Anxiety, Stress) with students' anxiety disorder

Correlations			Depression	Anxiety	Stress
SAS 20	Pearson Correlation	Sig. (2-tailed) = 0.01	1≥0.993≥0		
		Sig. (2-tailed) = 0.05		1≥0.958≥0	
		Sig. (2-tailed) = 0.01			1≥0.999≥0

From the results in Table 5, we confirm that there is a close correlation between levels of Depression, Anxiety, Stress and the level of students' anxiety disorder (SAS 20). This confirmation is proved by: $r_1 = 0.993$ ($\alpha = 0.01$); $r_2 = 0.958$ (($\alpha = 0.05$); $r_3 = 0.999$ ($\alpha = 0.01$).

4. Conclusions

The result showed that the level of anxiety disorder among the surveyed students was relatively high. The level of anxiety disorder in female students was higher than that of the males; the level of anxiety of students in preschool education was higher than those in primary education. All of them, from first-year to fourth-year students, suffered anxiety disorder, but the third-year students were at the highest level.

Depression, Anxiety and Stress factors were high to these students and some had Severe and Extremely severe level at three those factors. The students' anxiety disorder had a close correlation with Depression, Anxiety and Stress, in which Anxiety strongly affected their anxiety disorder.

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