



Depression and Anxiety Related to Adult Development of University Loan Fund Students During Covid

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Received: 28 February 2024; Revised: 9 July 2024; Accepted: 16 July 2024; Available Online: 3 September 2024

Abstract

The study focused on vulnerable students with loan funds during the coronavirus pandemic. The first research objective is to assess levels of adult development anxiety and depression and the second is to study the relationship of Naresuan University students with student loans during the coronavirus outbreak. A sample of 400 student loan fund students were given the developmental anxiety to adulthood assessment form (AAA-NU) and the depression test (PHQ-9). Quantitative data were analyzed by One-Way ANOVA and t-test statistical methods and results showed that most of the student loan fund students had anxiety about developing into adulthood at a relatively low level related to factors of anxiety in all four areas of work, occupation, adaptation and situational, and most of them had mild depression. Quantitative data analysis revealed statistically significant differences among the university faculty with anxiety in developing into adulthood at the .05 level. A Pearson correlation analysis indicated the level of anxiety and of depression were positively correlated significantly at a moderate level, $r = .627$, $p < .001$.

Keywords: Anxiety Related to Adult Development, Depression, Student Loans Fund, Covid

Introduction

The coronavirus pandemic has been a great challenge around the world and in Thailand since 2019 affecting the lives of everyone at all levels of society. During these times, the subgroup of the population with mental health problems like those with anxiety problems and depression developing into adulthood have been at increased risk (Debowska et al., 2022). Therefore, it is important to understand developing adults aged 18–25 which is not early adulthood but not adolescence anymore. Many of these young adults are bewildered by the skills required to work due to changing times. Arnett et al. (2014) argues that the estimated life span between the ages of 18 and 25 is a “different period” referred to as Emerging Adulthood (EA). In education and work during the covid pandemic, more than 1.5 billion students worldwide have had to stop learning in schools in traditional ways by physically attending classes and there has been a change in teaching and learning to teach at a distance via the internet. Studying at home requires technology to help many people to adapt to the teaching system to learning in the online system (Poovorawan, 2020).

Anxiety in adult development is a multifaceted variable influenced by various factors. Studies have shown that anxiety and intolerance of uncertainty play a significant role in the maintenance of demand avoidance behaviors in adults (Johnson & Saunderson, 2023). Additionally, individual differences in attention and attachment styles, particularly attachment anxiety, are linked to attention-related difficulties and effortful control in early adulthood. Furthermore, the prevalence of anxiety in the adult population is concerning, with higher levels observed in middle and late adulthood compared to early adulthood, as indicated by the development of an indigenous anxiety scale and assessment of anxiety prevalence among adults. These findings underscore the complex interplay between anxiety, attachment, attention, and age-related factors in shaping adult development and psychological well-being (Bano et al., 2021).



It was found that a number of students had problems with adjustment, relationship building and mental health problems caused by this change. Sriwongpanich (2021) provides information about a report from the Centers for Disease Control and Prevention (CDC) that in this epidemic situation up to 63 percent of adolescents aged 18–24 will experience anxiety, depression, or a combination of both. This is a problem that must be taken care of. There are also problems arising from the economic impact and lack of support according to Tuongratanaphan (2021) causing increased expenses in addition to the registration fee such as the monthly cost of the internet signal, purchasing mobile devices, tablets, computers for use in online learning and the lack of equipment used to prevent the spread of infectious diseases. These were all increased expenditures from studying during the pre-pandemic period.

Based on students with loan fund performance statistics at Naresuan University (Division of Academic Affair, Naresuan University, n.d.) there were more than 4,272 students at Naresuan University per year who were financially troubled but still wanted to stay in the education system. They have borrowed money in the form of student loans and plan in the future to prepare for work and pay off the debt that will follow them after graduation.

Anusaksathien et al. (2022) conducted a survey on anxiety in the development to adulthood of Naresuan University students by means of interviews from a representative group of Naresuan University students of 120 people. It was found that among the representatives who were interviewed, 68% of the sample had fear of becoming an adult. The representatives shared that their fears were often related to their expectations of what the future might not be like and the growing responsibilities of becoming an adult. In addition, it was found that if an adult would not be able to depend on others as much as when he was a child or worried that he would not be able to fit into his peers' society.

The importance of studying anxiety related to adult development and depression lies in their significant impact on individuals' psychosocial functioning, quality of life, and overall health outcomes. Research has shown that anxiety, depression, and stress are prevalent among adults worldwide, with varying severity levels (Nageswaran & Devi, 2021). Factors such as low birthweight, early life stressors, and socio-economic status can contribute to the development of depression in adulthood, emphasizing the need to consider a life course perspective when examining mental health outcomes (Colman et al., 2014). Additionally, during the COVID-19 pandemic, psychological factors like loneliness, perfectionism, and health anxiety have been identified as key predictors of anxiety and depression in young adults, highlighting the importance of addressing these factors to mitigate psychiatric disorders during challenging times (Lee et al., 2023). Understanding the interplay between these variables is crucial for developing effective preventive strategies and interventions to promote mental well-being across different stages of life.

The Chulalongkorn University Social Research Institute, in collaboration with the Thai Health Promotion Foundation and the Higher Education Commission, aimed to address the health of Thai students facing increased stress and various risk factors. Financial status varied significantly among students, with half debt-free (mostly in Bangkok) and the other half burdened by debt (mainly in provincial areas), including nearly 40% owing to the Student Loan Fund for tuition fees, living expenses, and housing. Key factors impacting student life and stress included financial problems (11.5%), anxiety (10.7%), sleep issues (7.9%), and concentration difficulties (7.7%), with 5% facing social media and gaming addiction (NationTV, 2022).

Similar studies worldwide have shown that financial stress during the COVID-19 pandemic is linked to depressive symptoms among university students. In Germany, financial difficulties were associated with factors



like migration background and non-academic parents (Negash et al., 2021). In the Czech Republic, fears among students shifted from education to career-related, reflecting emerging adulthood anxieties (Volková & Dušková, 2015). In the US, students experienced increased fears due to economic challenges and social pressures. French adolescents showed a connection between career indecision and anxiety (Vignoli, 2015). In Spain, borrowing money led to stress and mental health issues (Yousefi et al., 2011). Overall, the pandemic exacerbated financial uncertainties, impacting students' work, life, and ability to repay educational debt.

A study by Arnett et al. (2014); Jiang et al. (2021); Anusaksathien et al. (2022) and Volková and Dušková (2015). These studies have examined aspects such as Mental Health, Adult Anxiety, Fear, Depression, Anxiety, and Stress During the COVID, which sheds light on the pandemic's impact on mental health. However, there is a gap in understanding how anxiety specifically affects adult development in the context of student loans. To address this gap, research could investigate the relationship between anxiety, depression related to student loans, and adult development among University Student Loan Fund Thai students during COVID-19, providing insights into the psychological impact of financial burdens on young adults' development and decision-making processes, ultimately aiding in the development of targeted support programs and interventions for this vulnerable population.

This research studied the effects of anxiety and depression on a specific group of young adult students during covid in terms of financial loans. The data collected validates the degree of developmental anxiety and depression during this time and emphasizes the need to provide better for such students in future and similar situations. Academic studies referenced and the observations made by affected populations around the world by the pandemic, underscore the psychological pressures many students faced and provide more insight into developing understanding for effective coping.

Research Objectives

1. To assess anxiety levels in adulthood development and depression among Naresuan University students with student loans during the Corona Virus Pandemic.
2. To study the relationship between adult development anxiety and depression among Naresuan University students with student loans during the Corona Virus Pandemic.

Hypothesis

Depression among students developing into adulthood is significantly associated with Anxiety in students with loans at Naresuan University at a statistical significance of .05.

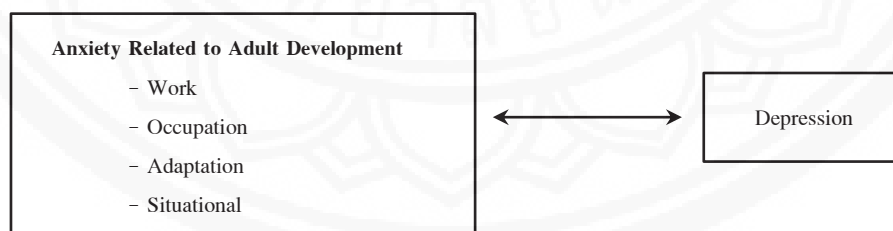


Figure 1 Research Conceptual Framework.

Methodology

Research Sample

The study's sample comprised undergraduates from 13 faculties at Naresuan University during the first semester of the 2021 academic year. These students had borrowed money from the Student Loan Fund. At that time,



Naresuan University had an overall student population of 24,653, of which 4,272 were loan recipients. Using the Taro Yamane sample computational formula (Yamane, 1973) with quota randomization, 370 students were initially included in the sample. An additional 30 students were added to account for potential sampling errors, bringing the total sample size to 400.

Stratified sampling was employed by dividing the loan fund student population of 4,272 into sample groups based on data from each faculty. For instance, the Faculty of Pharmacy had 200 loan fund students. Proportionally, this faculty contributed 18 students to the sample. Simple random sampling was then used to select 18 volunteers from the Faculty of Pharmacy. This method was repeated for each faculty to ensure a representative sample across all faculties.

Inclusion Criteria

1. Loan fund student bachelor's degree at Naresuan University.
2. There was no illness or disability that was an obstacle to answering the questionnaire.
3. Agree to answer the questionnaire.

Exclusion Criteria

1. Participants who did not complete the questionnaire as described.
2. Students who are not registered as a loan fund student.

Research Tools

The tools used in this research were divided into 3 parts

Part 1 Personal Data Check List Questionnaire .

Part 2 Naresuan University Adult Development Anxiety Assessment (AAA-NU).

This instrument was a pilot study of an anxiety assessment to adulthood (AAA-NU) developed by Anusaksathien et al. (2022). The objective was to assess 4 dimensions of anxiety as regards the development of adulthood: situation (10 items), work (5 items), adaptation (3 items), and occupation (3 items), totaling 21 items. The assessment tool had a reliability of .906 which was at a good level with a level 4 on the Likert scale where the student chose only one answer from 4 options. Each question is scored from 1 to 4 as follows: 1 = Least, 2 = Low, 3 = High, 4 = Highest. Scores ranged from 21–96 points with the following criteria:

Less than 56 points 56 points indicating low anxiety related to adult development.

56–66 points indicating relatively low anxiety related to adult development.

67–73 points indicating quite high anxiety related to adult development.

74 or higher indicating a high anxiety related to adult development.

Part 3 The Depression Test (Patient Health Questionnaire: PHQ-9).

The PHQ-9 depression screening tool is a questionnaire developed by the Faculty of Medicine at Ramathibodi Hospital, Mahidol University, for assessing and screening for depression. The PHQ-9 consists of 9 questions, each related to depressive symptoms that the patient may have experienced in the past 2 weeks. Each question is scored from 0 to 3 as follows: 0 = Not at all, 1 = Several days, 2 = More than half the days, 3 = Nearly every day. The scores for all 9 questions are summed to obtain a total score, with a maximum score of 27. The total score can be used to categorize the severity of depression as follows:

0–4 points: No or minimal depression

5–9 points: Mild depression.

10–14 points: Moderate depression.



15–19 points: Moderately severe depression.

20–27 points: Severe depression.

The PHQ-9 has high reliability and validity, with a Cronbach's alpha value of approximately 0.86 to 0.89, indicating a high level of reliability in measuring depressive symptoms.

Data Collection

Collection of data was conducted following appropriate ethical considerations and protection rights and was ethically certified by Naresuan University (COA N. 393/2021, IRB No. P2-0040/2021).

This research was a quantitative research study using assessment as a tool to collect data to test the research hypotheses. The steps and details in conducting the research are as follows: The period of study and data collection was between August to December 2021. Within the online questionnaire, details of the research data and a request for volunteer consent for research data were provided to the subjects for consideration on the first page of the questionnaire. These were the steps followed:

1. The researchers distributed online questionnaires via various platforms.
2. The researcher checks the completeness and correctness of the questionnaire.
3. The researcher scores the assessment form according to the predetermined criteria.
4. The researcher used the data obtained from checking the questionnaire scores to analyze with a statistical program.

The Statistics Used in this Research

1. Descriptive data analysis used to describe, explain, or summarize the characteristics of a group of numerical data. Statistics used were percentage, mean and standard deviation.
2. Inferential data analysis used to summarize the various statistics that occur in the surveyed sample to the group's population. Statistics used were independent t-test, One-way ANOVA, and Pearson's Correlation with SPSS software used for statistics.

Results

General information about the individual factors of the respondents found that the majority of respondents. There are 319 female students, representing 79.75%, and 81 male students, accounting for 20.25%. All respondents were of different age groups: the first group was aged 18–19 years with 198 people representing 49.50%, followed by 169 people between 20–21 years old, representing 42.25%, and the age group 22–23. Year, there were 33 people, representing 8.25%, and from the data collection, there were no people in the age group of 24–25 years. As for the average grades, it was found that most of the students had an average grade of 3.01 or more, with 252 students representing 63.00%, followed by 2.51–3.00 of 100 students representing 25.00%. 2.51–3.00 of 45 people, accounting for 11.25%, and the last 3 people less than 2.00, accounting for 0.75%, respectively. In terms of monthly income, it was found that most students had incomes less than 4,000 baht per month, there were 205 people, accounting for 51.25%, followed by monthly income of 4,001–6,000 baht per month, amounting to 147 people, accounted for 36.75%, and the next one was earning 6,001–8,000 baht per month, 35 people, accounted for 8.75%, and finally 13 students who earned more than 8,001 baht per month, representing 3.25%.

**Table 1** Shows the Mean, Standard Deviation and the Level of Developmental Anxiety in Adulthood Classified by Work, Occupation, Adaptation and Situational

Score Level	Min.	Max.	Mean	S.D.	Anxiety Levels
Work	5.00	19.00	2.75	.634	High
Occupation	3.00	11.00	2.59	.685	High
Adaptation	3.00	11.00	2.45	.717	Low
Situational	10.00	38.00	2.35	.614	Low

From Table 1, Respondents had a level of anxiety classified by work at 2.75 (a high level), by occupation at 2.59 (a high level), by adaptation at 2.45 (a low level) and by situational at 2.35 (a low level).

Table 2 Shows the Mean, Standard Deviation, and Level of Developmental Anxiety in Adulthood

Score Level	N	Percentage	Mean	S.D.	Anxiety Levels in Adulthood
Less Than 56	146	36.50	45.34	9.38	Low
56-66	119	29.75	61.20	2.83	Relatively Low
67-73	71	17.75	69.46	2.01	Quite High
74 and Above	64	16.00	80.34	80.34	High
Total	400	100.00	60.17	13.61	Relatively Low

From Table 2, Most of the 400 respondents had a relatively low level of anxiety developing into adulthood with an average of 60.17. It was found that in terms of level of anxiety developed into adulthood 146 students with a level of anxiety developed into adulthood with an average of 45.34 (low) followed by 119 students with an average level of 61.20 (relatively low) and 71 students had an average of 69.46 (relatively high). Finally, there were 64 students with a high level of anxiety in developing into adulthood, with an average of 80.34.

Table 3 Shows the Mean, Standard Deviation, and Depression Levels

Score Level	N	Percentage	Mean	S.D.	Depression Level
0-4	118	29.50	2.53	1.39	No Depression
5-8	136	34.00	7.05	1.55	Mild Depression
9-14	87	21.75	11.59	1.39	Moderate Depression
15-19	40	10.00	17.10	1.50	Depression is Quite Severe
20-27	19	4.75	21.78	1.62	Very Severe Depression
Total	400	100.00	8.14	5.59	Mild Depression

From Table 3, Most of the respondents had mild depression (N = 136) with an average of 7.05). There were 118 people without depression, with an average of 2.53, followed by 87 with moderate depression. The mean score was 11.59, followed by 40 with an average of 17.10 with very severe depression, and 19 with an average of 21.78 for very severe depression.

Table 4 The Relationship of Developmental Anxiety Level to Adulthood and Depression Level

Variable	Depression Level		
	Pearson Correlation(r)	p-value	Correlation Level
Anxiety Levels to Adulthood	.627**	< .001	Moderate

Note: **Statistically Significant at .001 Level

From Table 4, it was found that Pearson's correlation analysis showed that the level of developmental anxiety disorder with depression level was significantly positively correlated level moderate with $r = .627$, $p < .001$.



Discussion

The results of this study reveal several key insights into the anxiety and depression levels among Naresuan University students with student loans during the COVID-19 pandemic. The discussion is organized according to the study's research objectives and is linked to relevant theoretical concepts.

Objective 1: To assess anxiety levels in adulthood development and depression among Naresuan University students with student loans during the Corona Virus Pandemic. The study found that anxiety levels related to adulthood development and depression were significant among Naresuan University students with student loans during the COVID-19 pandemic. This finding aligns with the stress-vulnerability model, which posits that individuals with higher levels of financial stress are more vulnerable to experiencing mental health challenges. For example, the ELVTR survey (Barnes, 2022) found that 54% of student borrowers experienced mental health challenges due to the debt owed, with 56% of these individuals experiencing anxiety and about a third suffering from depression. Additionally, the stress caused by student loans led many borrowers to delay major life events, such as starting a family. These findings are consistent with Swaminathan's report (2020), which indicated that confusion, stress, and anxiety were common among student loan borrowers during the pandemic. Similarly, Pramukti et al. (2020) reported high levels of anxiety and suicidal thoughts among university students in Thailand during the COVID-19 pandemic, highlighting that anxiety levels varied across countries, with Thai students exhibiting the highest anxiety levels. Ingard et al. (2020) found that students from the Faculty of Information and Communication Technology at Silpakorn University experienced high levels of anxiety in all dimensions, with economic conditions, learning anxiety, and financial anxiety being the most significant. This suggests that financial insecurity and economic factors contribute significantly to anxiety among students, consistent with the economic stress model, which links economic hardship to increased stress and mental health issues.

Objective 2: To study the relationship between adult development anxiety and depression among Naresuan University students with student loans during the Corona Virus Pandemic. The results indicate a moderate positive correlation between anxiety and depression levels. This relationship underscores the interconnected nature of these mental health challenges, particularly in the context of financial stress, aligning with the diathesis-stress model which suggests that stressors such as financial burdens can exacerbate underlying vulnerabilities to mental health issues. Barnes (2022) concluded that most student borrowers struggle to repay their loan debts, with more than half reporting that their debt puts significant strain on their mental health. Additionally, Rodcharoen et al. (2016) found that a student's GPA was not a significant factor in differentiating stress levels. The majority of students had a GPA of 3.01 or higher, yet still experienced high anxiety levels, emphasizing that academic performance does not shield students from the stress caused by financial burdens. This aligns with cognitive appraisal theory, which posits that how individuals perceive and appraise stressors, such as financial debt, significantly impacts their psychological response. The study also examined anxiety levels in adulthood development, finding that respondents experienced high anxiety related to work and occupation, but lower anxiety related to adaptation and situational factors. This is consistent with Ngotngamwong's (2021) findings that job hunting was challenging and stressful for half of the participants, with many needing to adjust to new job conditions such as remote, on-site, or hybrid work environments. Despite these challenges, many participants experienced job security, particularly those in high-demand fields or booming industries. This reflects the life-course perspective, which examines how early life experiences and transitions impact later life outcomes, including mental health. Finally, Jiang et al. (2021) found that nursing students during the COVID-19 pandemic experienced various psychological impacts, including



negative emotions, anxiety, fear, and stress. However, the pandemic did not affect their career decisions, highlighting that certain professional fields may provide a buffer against the anxiety related to job security and career prospects. This finding aligns with role theory, which suggests that well-defined roles and career trajectories can provide stability and reduce anxiety during times of crisis.

Conclusions

The sample group consisted of 400 undergraduate students studying in 13 faculties at Naresuan University who borrowed from the Student Loan Fund. Among these students, 146 had a low level of anxiety, 119 had relatively low anxiety, 71 had relatively high levels, and 64 had high levels of anxiety. The most common determinants of anxiety into adulthood were, by mean: work (2.75), occupation (2.59), adaptation (2.45), and situational factors (2.35). Regarding depression levels, the majority of respondents had mild depression with an average score of 8.14. Among these, 118 were without depression (mean of 2.53), 136 were mildly depressed (mean of 7.05), 87 were moderately depressed (mean of 11.59), 40 were severely depressed (mean of 17.10), and 19 were very severely depressed (mean of 21.78). The level of anxiety in progression into adulthood and the level of depression were significantly positively correlated at a moderate level, $r = .62$, $p < .01$ as per Pearson correlation. The results of this study have important implications for both academic and professional research. Academically, the findings contribute to the existing literature on the mental health of university students, particularly in the context of financial anxiety due to student loans. These insights can be used to inform further research that explores the long-term effects of financial stress on student mental health through multivariate analysis or longitudinal studies.

The Limitations of this Study

While conducting the study, we faced limitations in resources, including time and personnel, resulting in the data collection for this study sample including only a few groups of Naresuan University students from academic faculties. The study should be repeated with students from other faculties not included in the sample. Therefore, the next study should consider the research design, such as multivariate analysis or longitudinal study to expand the results of this study more deeply. Additionally, this study was designed as an initial phase to gather preliminary data and insights. The goal was to identify trends and areas of concern that could inform larger-scale studies in the future.

Recommendations

Recommendations for Using Research Results

1. For university administrators and policymakers the research can be used to strengthen mental health programs and implement comprehensive mental health programs specifically tailored to address financial stress and its impact on anxiety and depression in group of students These programs may include counseling services. Stress Management Workshop and financial literacy education
2. For financial advisors the research can be used to evaluate and improve financial assistance models to reduce the financial burden on students. This may include increasing grants and scholarships as well as offering



flexible student loan repayment plans including advising students about loan repayment options, budgeting and financial planning for student loans.

3. For university mental health personnel the research can be used to raise awareness among students about the effects of financial stress and to equip them with effective strategies for managing stress. This may include courses or workshops on stress management, mental health platforms, and financial planning.

Recommendations for Future Studies

1. Future studies should include samples of students from different faculties and universities throughout Thailand. This will help ensure that the findings are more generalizable and provide a comprehensive understanding of the mental health impacts of financial stress in various Thai academic settings.

2. To gain more insight into the long-term effects of financial stress on mental health researchers should conduct long-term studies that follow students over long periods of time. In addition, multivariate analysis can help identify specific factors that cause anxiety and depression. This allows for more targeted action.

3. Future research should explore protective factors that can alleviate the impact of financial stress on students' mental health. Identifying these factors will aid in creating resilience-building programs and support systems designed to help students manage financial and academic pressures.

Conflict of Interest

I do so declare there have been no conflicts of interest in completing this study.

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