



**An-Najah National University
Faculty of Graduate Studies**

**PSYCHOLOGICAL EFFECT OF CO-EDUCATIONAL
VERSUS NON CO-EDUCATIONAL SECONDARY
SCHOOLS TOWARD COPING WITH UNIVERSITY LIFE
FOR SECOND-YEAR STUDENTS AT AN-NAJAH
NATIONAL UNIVERSITY**

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**This Thesis is Submitted in Partial Fulfillment of the Requirements for the Degree of
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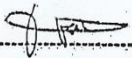
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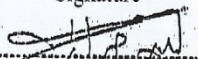
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Dedication

I would like to dedicate my work to my family. They instilled in me a desire to learn and made a sacrifice so I would have access to high quality education. Their love, care, and belief in me built the foundation for my success.

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First foremost, I would like to express my deepest gratitude to Allah to granting me strength, perseverance, guidance throughout this journey.

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Lastly, I acknowledge all those who contributed directly or indirectly to realization of this work, your support has been greatly appreciated will always be remembered.

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

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I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name: Nagam Ahmad Mohammad Agbaria

Signature: : Nagam Agbaria

Date: 10/7/2025

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PSYCHOLOGICAL EFFECT OF CO-EDUCATIONAL VERSUS NON CO-EDUCATIONAL SECONDARY SCHOOLS TOWARD COPING WITH UNIVERSITY LIFE FOR SECOND-YEAR STUDENTS AT AN-NAJAH NATIONAL UNIVERSITY

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Abstract

For many years, people have questioned whether co-educational schools are more effective than single-sex schools. The topic is critical since it directly influences kids' futures and intersects with critical areas such as academic success, job choices, and social relationships.

This study investigates the psychological effect of co-educational versus non-co-educational secondary schools toward coping with university life for second-year students at Anajah national university .

A quantitative approach is used to fulfill the study's objective. The researcher selected the sample through a convenient sampling method from the College of Medicine and Health Sciences. About 294 students were selected, divided as 147 students in Co-Educational Versus 147 students in Non-Co-Educational secondary schools.

Results reveal four key findings. First, co-educational students consistently reported lower levels of stress, anxiety, and depression, while non-co-educational students exhibited markedly higher rates of moderate to severe symptoms. Second, co-educational students demonstrated significantly better coping abilities, as evidenced by higher mean ranks and a statistically significant Mann-Whitney U value. Third, coping strategies were found to be strongly related to mental health outcomes in both school types, with more pronounced correlations in non-co-educational schools, suggesting that ineffective coping may exacerbate psychological distress in these settings. Finally, age and income variables had a significant association with mental health issues and coping levels in co-educational schools, whereas gender and place of residence did not yield notable differences.

co-educational schools have a more supportive environment for students' mental health compared with non-co-educational schools. Findings indicate that co-educational students experience lower levels of stress, anxiety, and depression, while non-co-educational students report higher rates of psychological distress. Additionally, co-educational students demonstrate significantly better coping abilities, highlight the protective role of mixed-gender environments in easing university transition. Strong correlations between coping strategies and mental health outcomes were observed, particularly in non-co-educational schools, where ineffective coping exacerbates distress. The study emphasizes the need for targeted interventions in non-co-educational settings to enhance coping skills and reduce psychological stress.

keywords: Psychological Effect, Co-Educational schools, Non-Co-Educational, Coping.

Chapter One

Introduction and Theoretical Background

1.1 Introduction

Co-educational schools Refers to an educational approach in which male and female students attend classes together and are taught in the same environment ” (Lloyd-Reichling, 2015, p 13).

For many years, people have questioned whether co-educational schools are more effective than single-sex schools (Rosenthal et al., 2011; Pahlke et al., 2014). These schools are the norm in most Western countries, but single-sex education remains an option in some, particularly in Asia and North Africa, where it has thrived due to cultural and religious convictions (Coffee et al., 2013; Verzijl, 2018). The topic is critical since it directly influences kids' futures and intersects with critical areas such as academic success, job choices, and social relationships (Giraldo-García et al., 2019). Pahlke et al. (2014) found that single-gender schools are more supportive for females as they were able to improve their academic results and experienced fewer gender stereotypes.

However, Giraldo-García et al. (2019) found no real academic differences between the two school types. Student preferences and learning styles affect school choice as noted by O'Connor et al. (2019). In fact, adapting to university life represents an important mental health challenge. Students must learn to handle new situations, manage stress, and balance their studies with social activities that may develop differently depending on their previous school environment (Maunder et al., 2010). Also, co-educational students are more engaged with peer groups. This engagement helps them have coping skills (O'Connor et al., 2019). In contrast, students in single-gender schools form stronger friendships and experience less pressure to follow gender stereotypes. These shape their coping abilities differently (Coffee et al., 2013). The choice between these school types depends on personal preference, learning style, cultural and religious views, and the educational setting.

Pahlke et al. (2014) believed academic differences are found among students based on the school in which they are enrolled. The study added that students in single-sex schools do better in science courses compared to those from co-educational schools. However,

Rosenthal et al. (2011) found different results. Math and science scores were higher among females from co-educational schools. Females from single-sex schools had lower exam results. Researchers have found some factors that can affect students' growth like social skills. Research by Verzijl (2018) showed stronger emotional intelligence and communication abilities in co-educational school students compared to single-sex school students. They suggest this happens because co-education schools are offering their students social settings. In these settings, students have the opportunity to interact with both genders. A student's learning style, personality, and cultural background might influence how much single-gender education helps them (Almasri, 2022).

Previous work found that students from traditional societies might do better in single-sex schools. They also found that students from more equal societies may succeed in co-educational settings. There is no perfect solution for all students, and teachers must consider each student's needs when making educational choices (Bergmark et al., 2018). Additionally, research shows mixed results about academic success in co-education versus single-sex schools (Erdoğdu, 2020; Bergmark et al., 2018). We must also look at other factors like social skills (Garcia, 2016). Teachers should consider students' personal traits and cultural backgrounds (Alibekova, 2024). This approach helps create better learning environments for student growth (Garcia, 2016).

Coffee et al. (2013) claim that single-gender schools build students' self-esteem and leadership skills. These schools help students break gender stereotypes by offering more chances for leadership roles and activities usually dominated by one gender. Whether one school type is better than the other, both types of schools have advantages and disadvantages. Choosing among them should depend on what each student needs and prefers.

The change from high school to university creates challenges for many students. In this context, Maunder et al. (2010) explain that university demands like academic pressure, social and emotional challenges, and more personal responsibility can lead to higher stress and mental health problems in students.

Students from single-sex schools experienced more stress and had harder transitions to university compared to those from co-educational schools (O'Connor et al., 2019). They help them in dealing with university challenges at an early age. Culture and environment

can affect how these types of schools support students in having proper mental health. Schools support student mental health by offering services to manage stress and anxiety. They can provide mental health counseling, stress reduction programs, and peer support groups to help students handle university challenges. Schools can also create a healthy, welcoming environment that accepts different student groups and builds social connections (O'Connor et al., 2019).

Schools can improve student well-being and provide resources for handling university challenges. Those who are enrolled in co-educational teaching demonstrate better emotional intelligence (O'Connor et al., 2019). However, single-sex school students had less emotional intelligence. On the other hand, a better environment for enhancing positive self-esteem as well as leadership abilities is provided by single-gender schools Coffee et al. (2013). High school students face tough challenges when they shift to university life (Maunder et al., 2010). The study added that this change may affect their academic and personal lives in the long term. Research suggests co-educational schools improve students' coping skills, but these findings are not absolute. Academic results, social skills, and coping abilities should all be considered, as they can greatly affect students' future success and well-being. Hence, students who wish to join any type of these available schools depend on understanding what matters most for each student's personal and academic growth.

1.2 Theoretical Background

Many studies have examined co-education's impact on academic and social development, and their findings form this study's theoretical foundation (Yasin et al., 2020; Khan et al., 2025). One main argument supporting co-education suggests that when boys and girls share a learning environment, they learn from each other. In this context, they can have better grades and academic achievement (Almasri, 2022). (Almasri, 2022) found that mixed-gender classrooms create more complete discussions and sharing of ideas. Also, co-education builds a healthy competitive spirit among students.

Co-education has improved academic results for students. Research indicates that when boys and girls share a learning environment, they learn from each other (Giraldo-García et al., 2019). This happens because students encounter different viewpoints. Co-

educational settings can also provide more learning opportunities (Hyvönen, 2008; Stenberg & Boström, 2025).

Students in co-education schools tend to feel more comfortable around the opposite gender (Otekunrin & Otekunrin, 2020). Bergmark et al. (2018) found that co-education also builds good personal and work relationships for students. Students from single-sex schools may find it harder to engage themselves with the opposite gender. This can cause problems in their personal and work relationships. Despite the many benefits of co-education, it has some downsides too. One problem is the distraction from romantic relationships among students (Cicekci & Sadik, 2019). It can make students lose focus and motivation. Another possible drawback is that gender stereotypes and biases might continue to exist in these environments (Garcia, 2016).

Co-education may keep old gender roles and expectations going. This can limit opportunities and slow down progress toward gender equality (Idrees, 2024). Some students may also feel uncomfortable or scared in a co-educational setting. In this context, social isolation as well as less participation may happen in classroom activities (Alibekova, 2024). So, teachers can build a friendly as well as inclusive learning setting to reduce these possible problems. This means promoting respect and fair treatment for students of different genders and other personal characteristics.

Schools can also create rules to reduce distractions and make sure all students have equal chances to learn (Cicekci & Sadik, 2019). Co-education creates a balanced social environment. It also provides opportunities for different learning experiences. These can be done by creating a friendly and inclusive learning environment (Alibekova, 2024). Co-education helps prepare students for successful personal and work relationships in the future. Students who attend co-education schools feel more comfortable around classmates of the opposite gender (Otekunrin & Otekunrin, 2020). Otekunrin and Otekunrin (2020) also note males and females develop better relationships through this shared educational experience.

Dealing with university can affect their academic progress. It involves managing the challenges of higher education while keeping a balance between academic work and personal life. Rahat & İlhan (2016) defines coping with university life as how a person judges their quality of life based on their values and beliefs. This judgment includes

academic success, social connections with teachers and fellow students, research and summarizing skills, and the ability to handle academic and mental stresses. Coping with university life has been shown to predict mental health and enthusiasm for life, especially among young people who often experience psychological problems like loneliness and depression (Rahat & İlhan, 2016). Because of this, universities have been trying to encourage good coping strategies among students to improve mental health and well-being.

Research shows co-educational learning environments improve academic performance (Almasri, 2022). In co-education schools, males and females can learn through interaction with each other and other forms of relationships. Narwana and Rathee (2019) added that co-education creates a social environment where boys and girls can freely talk, learn from each other, and appreciate their differences. Co-education can also provide a better environment for boys by helping them build connections with the opposite sex. This can bring social benefits like developing responsibility and reducing excessive shyness (Narwana & Rathee, 2019). These advantages can help students become more confident and outspoken (Otekunrin & Otekunrin, 2020).

Students who want to cope with university life may affect their mental health. The challenges in their university life can affect a person's personality and relationships with others (Liu et al., 2019). Students who struggle to cope with university life will have mental health problems like anxiety and depression. Another key part of coping with university life is contentment, which shows how satisfied a person is with their lifestyle (Kastner & Crowder, 1990). Their study found that satisfaction predicts mental health outcomes. Students who are satisfied with their university experience will have better results and a positive outlook on life. In conclusion, coping with university life predicts mental health and passion for life (Rahat & İlhan, 2016). Hence, it becomes necessary to know what helps them cope during their university life, such as how co-education affects academic achievement and social development.

1.3 Problem statement

When students leave home and start university, they face many challenges. They enter a new world that can be stressful. So, students have to balance schoolwork with personal and social duties. They must also build relationships with classmates and teachers,

manage their money, and plan future jobs. These responsibilities can be really hard for second-year students. Gender equality issues in the university can also add stress to students as both genders need to receive the same opportunity to learn. However, social rules and expectations do not always match these ideals. Some students face gender discrimination or feel pushed aside Eze et al. (2024).

The type of high school students attended might affect how they handle college demands. Co-education schools let students mix with both boys and girls, which can bring more social variety and give a better picture of real life. However, these settings can cause problems, too, such as social distractions and conflicts between students. From a different perspective, single-sex schools might offer a better learning experience, but they can limit exposure to different viewpoints Pahlke et al. (2014) .

Based on the review above, this study explores how co-education versus single-sex high schools affect psychological issues (anxiety, depression, stress) and college adjustment among second-year students at An-Najah National University (NNU). The researcher aims to understand what helps students adapt well to university by studying students from different backgrounds. The researcher also develops methods to support their mental health and uses academic records to measure students' performance. The results of this study add to what we know about student mental health and coping strategies, especially regarding gender equality and high school choice.

1.4 Study questions

1. To what extent do levels of anxiety, stress, and depression differ between students from co-educational and non-co-educational secondary schools among second-year students at NNU?
2. To what extent do coping strategies for university life differ between students from co-educational and non-co-educational secondary schools among second-year students at NNU?
3. Is there a relationship between psychological scores and coping with university life in co-educational Versus non-co-Educational Secondary Schools among second-year students at NNU?
4. How do variables such as gender, age, place of residence, type of secondary education, and family monthly income influence the relationship between attending co-

educational versus non-co-educational secondary schools and the psychological outcomes (anxiety, stress, and depression) as well as coping with university life among second-year students at NNU?

1.5 Study Hypothesis

The current study aims at testing the following hypothesis:

1. There are no statistically significant differences at (p-value = 0.05) in anxiety, stress, and depression among Co-Educational Versus Non-Co-Educational Secondary Schools among the second-year students at NNU.
2. There are no statistically significant differences at (p-value = 0.05) in coping with university life among Co-Educational Versus Non-Co-Educational Secondary Schools among the second-year students at NNU.
3. There is no statistically significant at (p-value = 0.05) relationship between psychological scores and coping with university life in co-educational Versus non-co-Educational Secondary Schools among second-year students at NNU .
4. There are no statistically significant at (p-value = 0.05) interactions between demographic variables (gender, age, residence, type of education in secondary schools, family monthly income) on the relationship between Co-Educational Versus Non-Co-Educational Secondary Schools and psychological effects (anxiety, stress, and depression) and coping with the University Life for second-year students at NNU.

1.6 Study Objectives

- To assess the levels of anxiety, stress, and depression among second-year students at NNU based on whether they attended co-educational or non-co-educational secondary schools.
- To evaluate how well second-year students at NNU cope with university life in relation to the type of secondary school they attended (co-educational vs. non-co-educational).
- To investigate the relationship between psychological well-being (anxiety, stress, and depression) and coping with university life among second-year students at NNU, with consideration of the type of secondary school attended.

- To examine how demographic factors (such as gender, age, place of residence, type of secondary education, and family monthly income) influence the relationship between secondary school type (co-educational vs. non-co-educational), psychological outcomes, and coping with university life among second-year students at NNU.

1.7 Significance

This work's significance stems from its attention to the topic of investigating the relationship between co-educational and non-co-educational secondary schools and their impact on psychological effects (anxiety, depression, and stress) and dealing with university life among second-year students at NNU. This is a critical topic since it has long-term ramifications for students' intellectual and psychological development, coping methods, academic performance, and mental health, with a focus on gender differences, particularly as they proceed to university life. The study's findings are likely to assist stakeholders: the Ministry of Higher Education and educational academics. The findings can provide significant insights into the obstacles experienced by students of secondary school education in terms of their readiness to cope with the demands of university life. Furthermore, the findings can assist policymakers in better understanding the potential benefits of co-education in Palestinian schools, which can aid in reducing gender disparities in education and promoting more inclusive learning environments. The study can assist schools and universities in designing policies and programs that improve students' mental and emotional resilience by evaluating the relationship between co-educational and non-co-educational secondary schools on students' psychological effects and coping mechanisms. This thesis helps to understand the effect of school type on their impact on psychological effects (anxiety, depression, and stress) and dealing with university life.

1.8 Literature Review

1.8.1 Introduction

This research investigates the impact of attending mixed-gender versus single-gender schools on students' mental well-being and their ability to handle university challenges. The focus of this research is on sophomores (second-year students) at NNU. To ensure the study was conducted properly, the researcher carefully explored other related research. The researcher has gone carefully through previous studies on the same subject. This

helped the researcher investigate their topics and results to ensure that this current work can fill a literature gap. The previous studies were the basis of this research and ensured the intended results could be reached. The researcher explored several earlier studies connected to this study topic, including co-educational schools, how students cope with university life, educational schools in general, and the mental health aspects of co-educational schools.

The researcher adopted a comprehensive research strategy, including the use of keywords such as "coeducational schools," "single-sex schools," "adapting to university life," "psychological impact," "anxiety," "depression," and "stress," in both Arabic and English. Reliable academic websites and databases were used, such as Google Scholar, PubMed, ERIC, and ResearchGate, in addition to Arabic electronic libraries such as the Saudi Digital Library and the Marifa System. The search scope included studies published between 2009 and 2024, with the aim of covering older studies that contributed to building the theoretical foundation, as well as more recent studies that reflect the current reality and contemporary developments.

1.8.2 Co-educational schools

Kachero (2014) conducted a study on coeducation and students' performance. This study explored how mixed schools affect how well students study. It also examined what students and teachers think about mixed schools and how they impact learning. The researchers used two main ways to gather information. First, the researcher examined the national high school exam scores from Kenya for four years (2010 through 2013). Second, they gave questionnaires to students and teachers to learn about their opinions on mixed schools and academic performance. The researchers selected 12 secondary schools (4 of each type of school) to study their test results. They also gave questionnaires to 240 students and 40 teachers. The study found that the kind of school they go for can affect their academic performance. Those who go to schools with only one gender seem to get better grades. Most students and teachers said they prefer schools with only one gender. They gave several reasons for not liking mixed schools:

- Students misbehave more often.
- Boys sometimes misbehave toward girls
- Girls feel scared or shy to speak up in class

- Teachers behave in different ways when they treat their students (both males and females). Teachers usually show good behaviour with females more often.

Okafor and Mokwelu (2018) explored how co-education schools affect students performance. They designed a questionnaire to collect the required information from the sample (two hundred and eighty participants). They found mixed schools have lower results than schools with only one gender. The researchers also found that the way students interact in the classroom can impact their performance. In mixed schools, females don't get the same opportunities as boys to develop their abilities. However, co-education schools create extra pressure on boys because they feel they need to do better than the girls in their class.

On the same line, Ogden (2011) explored how students perform in non-mixed schools. The findings showed that 6th-grade boys in single-sex classes and 7th-grade girls in mixed classes have higher opportunities to pass Georgia's math exam than those from other schools. A smaller group of students who stayed at the same school from 6th to 8th grade was also studied. Findings showed that 6th and 8th-grade girls in mixed classes were more likely to pass Georgia's math test than students in other class types. The results also showed that over three years, girls who took mixed classes and those who attended non-mixed schools had better math test results in Georgia.

1.8.3 Non co-educational schools

Ireland's 2018 international student test scores were examined to see how school subjects affected 4,944 students from both genders differently in single-sex schools versus co-educational schools, as stated by Clavel and Flannery (2023). The first thing researchers noticed was that girls performed differently in core subjects. Whether girls went to single-sex schools or mixed schools made a difference in how well they did in the core subjects. They also found differences in math scores for boys between these two school types. However, family background, individual student traits, and school characteristics showed no significant difference in academic performance.

Also, Erarslan and Rankin (2013) examined how school type relates to what female students think about gender roles. They studied 295 girls in their final year of high school from four schools. They found that after considering family background, students in single-sex schools had similar opinions regarding family roles than coeducational

students. However, the type of school didn't make a difference in opinions about work and social roles. Also, students in schools located in wealthy neighbourhoods had more similar opinions about gender roles in family and social life.

1.8.4 Coping with University Life

Esia-Donkoh et al. (2011) studied whether students have positive perspectives on handling stress. Students used ten different ways to deal with stress, but two methods worked best. Taking direct action and looking for the bright side were the most popular choices among students. The research also showed that students used more emotion-managing methods than problem-solving ones to manage and control their stress.

In Addition, Odaci and Çıkrıkç's (2012) research on 852 students found females to have better satisfaction compared to males. Participants, regardless of the course in which they were enrolled, differed in their methods of handling stress. A strong positive link was found between asking others for help and using problem-solving approaches to manage stress. Additionally, they found a significant relationship in avoiding problems as well as well-being in stress management methods. Using problem-solving methods to handle stress helped predict life satisfaction and well-being. So, when they avoid prole, they improve their well-being.

Also, Lynch et al. (2018) aimed to help students use mindful awareness in their studies, handling stress, communication and relationships, and health. Half the students learned special relaxation techniques while the other half continued with their regular routine. Those who practiced these calming methods felt much less worried and became better at staying focused during stressful times.

Moreover, Böke et al. (2019) found that high-stress levels combined with poor healthy coping skills may lead students to rely on outside sources like alcohol and drugs to manage their problems. They studied 5,917 undergraduates to explore the connection between how much stress students feel and their use of substances to cope. The findings show that greater stress levels are linked to students using unhealthy ways to deal with problems. Surprisingly, both stress levels and substance use for coping were higher among students in their later college years.

1.8.5 Co educational and non co- educational schools

Herrick (2009) researched single-sex schooling and co-educational schooling. They also explored the impact on student performance, testing, and gender bias. Their research found that separating boys and girls can be good for both genders. The study also added that teachers' unfair treatment related to gender equality was frequently rooted in traditional stereotypes about what was expected from girls and boys.

Finally, Yalcinkaya and Ulu (2012) examined if school type affected how students performed. Their study was done on 13 participants and studied at grade averages. Students got similar grades regardless of school they attended. This contradicted previous studies that claimed female students performed better in single-sex environments.

1.8.6 Psychological State of Co-Educational Schools

Similarly, Chowdhury (2010) did research on students from grades eight and ten to compare the confidence levels between single-sex and co-educational high schools. Results showed some impact from the school type; however, boys usually had higher scores than girls in most areas of ability, except for Close Friendships. Scores seemed to drop from grade 8 to grade 10, except for Romantic Appeal. Discussion groups found that relationships between classmates and teachers affected students' confidence at school. Students said that helping with social relationship development and having good role models available were methods to boost confidence at school.

In addition, Viswanath et al. (2017) investigated the background factors that influenced the mental well-being of students (600 participants) from co-educational and single-sex high schools. Results show that background factors impact psychological well-being. Female students showed better psychological wellness than males. Students from private schools had stronger mental wellness than those from public schools. Additionally, students attending mixed-gender schools had stronger psychological well-being.

A recent work completed by Eze et al. (2024) believed that educational therapy is effective for mental distress in low-income. The researchers included two hundred high school students to measure their mental health using the DASS-21 scale. Forty-eight students who scored higher than average were randomly placed into either a treatment group that received educational therapy or a controlled group. The findings showed that educational therapy decreased mental distress symptoms after six weeks. A one-month

check-up confirmed the benefits in the treatment group. However, the control group showed no changes. Researchers concluded that educational therapy works well for reducing mental distress among teenagers from low-income backgrounds. Fulambarkar et al. (2023) reviewed nine major studies involving over 5,000 teenagers to study the effectiveness of relaxation training in schools. They found that teaching students these techniques helped them handle pressure better but didn't make much difference in feelings of anxiety or depression.

Also, Wuthrich et al. (2021) explores how signs of mental distress changed during the year and to find possible influencing factors like gender, exam stress, confidence in abilities, and friendships with classmates. The findings revealed an increase in stress throughout the school year. They also believed that high exam stress with a high belief in academic abilities leads to higher stress levels during the final term.

Geo et al. (2024) conducted research on self-esteem and assertiveness inventory administered to 60 selected participants, with no modifications made to the questionnaire, which took 10-20 minutes to complete. The statistical analysis shows no differences in self-esteem and assertiveness among school types. Students from single-sex schools scored about 42.8 for self-esteem and students from co-education schools scored 42. For assertiveness, single-sex students averaged 8.9 compared to 8.4 for co-education students. The t-test results (t-value = 1.24 and 1 for self-esteem and assertiveness, respectively) and p-values greater than 0.05 indicate that both groups share similar self-esteem and assertiveness levels.

Based on a review of Literature Review, it is evident that there is a discrepancy in research findings regarding the impact of secondary education type (co-educational versus single-sex) on psychological adjustment. Furthermore, there are limited studies addressing the topic of adjustment to university life and its psychological effects, especially in the Palestinian context. There is also a noticeable scarcity of research linking school type to the level of adjustment to university life from a comprehensive psychological perspective, including anxiety, depression, and stress, especially among second-year students. Therefore, the importance of this study lies in bridging this gap by examining the relationship between secondary education type and students' ability to adjust to university life in the Palestinian context. This study contributes to a deeper

understanding of the factors influencing students' mental health and directing appropriate support.

1.9 Conceptual Definitions

Anxiety: “Anxiety is a general term for several disorders that cause nervousness, fear, apprehension, and worrying” (Kantilal Patel, 2013, p. 1).

Depression: “Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest in daily activities”(Mabelpoe, 2023) .

Mental Disability: “a mental disorder is defined as a syndrome characterized by clinically significant disturbance in an individual's cognition, emotional regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. These disturbances must cause distress or disability in social, occupational, or other important activities. Importantly, the DSM-5 clarifies that the syndrome must not be merely an expected or culturally sanctioned response to a particular event, nor primarily a result of social deviance or conflict with society ” (American Psychiatric Association, 2013).

Co-educational learning: “Refers to an educational approach in which male and female students attend classes together and are taught in the same environment” (Lloyd-Reichling, 2015, p 13).

Non-Co-Educational Learning: “An educational approach in which male and female students attend separate classes or are taught in single-sex environments” (Lloyd-Reichling, 2015, p. 13).

Psychological Effect: "Psychological effects refer to changes in an individual's behavior, emotions, or mental state that occur as a result of exposure to a specific stimulus or situation" (Hockenbury & Hockenbury, 2008, p. 16).

Academic Performance: "Academic performance refers to the level of achievement demonstrated by a student in their studies, typically measured by grades, test scores, and other academic indicators" (Farb & Matjasko, 2012, p. 7)

Mental Health: “Mental health refers to a state of well-being in which an individual can realize their potential, cope with the normal stresses of life, work productively, and make meaningful contributions to their community.” (World Health Organization, 2022).

Chapter Two

Methods

2.1 Research design

The quantitative approach is used in this study. It is also suitable for gathering the data from the sample, as the appropriate study approach is the descriptive comparative approach, which is concerned with describing the phenomenon, analyzing sufficient data, and interpreting it in light of other variables related to it. Additionally, the comparison between the results of the study sample members makes this approach most suitable for such a study.

2.2 Sample and sampling

The researcher used a convenient sampling technique. The College of Medicine and Health Sciences was chosen because they consist of an almost equal number of students from Palestine, most of whom studied in joint schools, and students from the West Bank, most of whom studied in separate schools.

The population of the College of Medicine and Health Sciences is 5,000 male and female students. The researcher studied second-year students from Faculty of Medicine and Health Sciences at NNU to achieve goals. All participants completed at least one year at NNU.

To calculate the number of second-year students, the researcher consulted the official website of the Faculty of Medicine and Health Sciences at NNU . It was found that most of the academic programs offered by the faculty extend over four years. Based on this, and assuming that students are distributed approximately equally across all years, the calculation $5,000 \div 4 = 1,250$ was used. Number of second-year students.

The study sample was selected by putting the number 1250 on the sample size calculator using the sample size calculator by Raosoft, N=294 students were obtained (147 students in co-education secondary schools, 147 in non co-education secondary schools).

The sample was taken using Convenient technique .The sample size is calculated via the formula:

$$n = \frac{X^2 * N * P * (1-P)}{(ME^2 * (N-1)) + (X^2 * P * (1-P))} \dots\dots\dots(1)$$

Where:

- n = Participants.
- N = Total sample number.
- X2 = Statistical value-based confidence level.
- p = The expected percentage of the population.
- ME = accepted error margin.

2.3 Data Collection

The researcher relayed on applying the study tools to second-year students at NNU, with data collected through online electronic forms. The questionnaires were distributed to groups of medical students at the university via the social networking site Facebook. A note was included stating that the questionnaire was specifically intended for second-year students. Two groups were then selected: the first group consisted of students from the Palestinian interior (attending co-educational secondary schools), while the second group comprised students from the West Bank (attending non-co educational secondary schools).

The questionnaires were distributed to two Facebook groups based on the type of education prevalent in those areas, as this factor naturally reflects the type of secondary schools. The first group included students from within Palestine, where most schools both public and private are coeducational. The second group included students from the West Bank, where single-sex (single-sex) schools are prevalent.

2.4 Instruments

2.4.1 Brief COPE (Carver,1997)

Brief-COPE is a 28-question questionnaire which individuals complete themselves. It measures how well people deal with stressful situations- both good and bad ways of

coping. Charles S. Carver created this test in 1997. It has become one of the most popular tools researchers and doctors use to understand how people handle stress and difficult situations. The test helps identify different strategies people use when facing problems, which can be helpful for both research studies and assisting patients in clinical settings.

Carver (1997) created the Short COPE as a 28-question tool where people answer questions about themselves. This tool has 14 different sections, and each section contains two questions. Researchers use this tool to identify individuals who are experiencing stress. The original full COPE was much longer with 60 questions that were put into 14 groups, though some questions were similar to each other/

This scale has several parts that work in a specific way. Participants rate how much they use different coping methods using a four-point system ("1 = I haven't been doing this at all"; "2 = I've been doing this a little bit"; "3 = I've been doing this a medium amount"; "4 = I've been doing this a lot"). Each of the 14 sections in the Short COPE gets rated this way. These sections cover various ways of handling problems. Some examples include distracting yourself, taking action, refusing to accept reality, using drugs or alcohol, getting emotional help, getting practical help, giving up on behaviour, expressing feelings, looking at things positively, making plans, using humour, accepting situations, turning to religion, and blaming yourself. When participants face challenging situations, they typically choose these methods to help them cope (Yehia et al., 2016).

2.4.1.1 validity and reliability

The validity and reliability of original scale were calculated by conducting an analysis of the responses of a sample of 168 individuals to extract the factors that make up the internal structure of the scale. The factor analysis resulted in extracting nine factors whose latent root exceeded 1.0, and they absorbed 72.4% of the total percentage of variance. These factors are: resorting to religion, using humor, abandoning behavior, and using psychoactive substances, each of which is an independent factor. The dimensions of the use of emotional support and the use of tangible support were organized into one factor, while the following three subscales: effective planning, dealing, and positive reframing, formed an independent factor. It is another factor in the dimensions of emotional venting and self-distraction. The last factor consists of the consistency of both the dimensions of

denial and self-reproach. As for the acceptance dimension, its items were divided into the dimensions of acceptance and effective dealing (Carver, 1997).

To reliability and consistency of the scale, the author used the alpha coefficient for the average scores of the sample members in three separate measurements. He concluded that although each subscale consists of only two items, the reliability of these scales is proportional to the minimum acceptable value, which is 0.50, as it exceeded 0.50.

All subscales have a value of 0.60, except for the scales of emotional catharsis ($\alpha = 0.50$), denial ($\alpha = 0.54$), and acceptance ($\alpha = 0.57$) (Carver, 1997).

The researchers found that the 28 questions in the test can be put into four main groups or types of coping strategies.

The current study used the Arabic version translated by Al-Mansouri (2014).

Translation Reliability to the Arabic and English versions:

Al-Mansouri (2014) translated the scale items from English into the Arabic. The translation's stability of the translation was verified through two procedures: the first, the reverse translation of the scale from Arabic language into the English, which was undertaken by one of the English language professor in the English Language Department, in the College of Arts. , Omar Al-Mukhtar University, and the back translation did not show any fundamental differences in meaning. The second method, it is a comparison of the responses of 30 English Department students to the Arabic and English versions. The reliability coefficient for the two formulas was calculated to be 0.75, which is a good value that confirms the integrity of the translation.

2.4.1.2 reliability of the Arabic version

The reliability coefficient of responses on the subscales ranged between 0.40 and 0.79; As for Alpha coefficients, ranged between 0.75 and 0.87, all of which are good indicators of the reliability of the scale. Over time and the consistency of its internal provisions.

2.1.4.3 Validity of the Arabic version

As for the levels of validity , the scale succeeded in distinguishing between the responses of both males and females, consistent with the trend of common qualitative responses

regarding focused coping strategies about emotion and problem-centered coping strategies. The exploratory factor analysis resulted in nine factors, and the factor structure of the Arabic version appears in this way to be logical and has psychological significance and meaning.

Carver's (1997) 14 types of coping classifications. Scales are computed as follows (with no reversals of coding):

“Self-distraction, items 1 and 19

Active coping, items 2 and 7

Denial, items 3 and 8

Substance use, items 4 and 11

Use of emotional support, items 5 and 15

Use of instrumental support, items 10 and 23

Behavioral disengagement, items 6 and 16

Venting, items 9 and 21

Positive reframing, items 12 and 17

Planning, items 14 and 25

Humor, items 18 and 28

Acceptance, items 20 and 24

Religion, items 22 and 27

Self-blame, items 13 and 26”

2.4.2 Depression, Anxiety, and Stress Scale (DASS-21; (Lovibond & Lovibond, 1995)

The researcher used the Arabic version translated by Alzahrany (2019) of the (DASS-21) scale in its abbreviated version of the application of the full version (DASS-42) of the scale prepared in early work (Lovibond & Lovibond, 1995). The scale consists in its

original version of 42 items and in its abbreviated version of 21 items, which is a questionnaire that is answered through a self-report, which aims to measure the main symptoms of negative emotions (depression, anxiety, and psychological stress). Three subscales: first scale: The measure of depression, which contains 14 items in the full version of the scale and 7 items in the short one to assess a disorder: mood/loss of hope/feeling of hopelessness/low value of life/self-contempt/loss of interest and participation/loss of enjoyment and anhedonia/deficiency Subjective / helplessness / laziness / lethargy The second sub-scale: Anxiety measurement, which contains 14 items in the full version, and 7 items in the short version to assess: subjective arousal / situational anxiety / bodily kinetic influence / influence of personal experiences in the case of anxiety. For the third sub-scale: stress measurement, which contains 14 items in the full version, and 7 items in the short version, to assess: the level of sensitivity to chronic non-specific excitability / difficulty relaxing / nervous agitation and irritability / susceptibility to excitability, irritability and excessive reaction / impatience. The response to the items of the scale is done according to a quadrilateral scale, which is “Did not apply to me at all, Applied to me to some degree or some of the time, Applied to me to a considerable degree or a good part of time, Applied to me very much or most of the time.” This evaluates the extent to which this feeling has been applied in the past week and gives the following scores (3, 2, 1, 0) respectively.

2.4.2.1 Validity and Reliability

The DASS-21 test was first created using answers from 504 students. These students were chosen from a bigger group of 950 first-year students. After making a test, the researchers tested if it worked properly by testing it on patients from hospitals who had mental health problems. This group included people with anxiety, depression, and other mental health conditions. This process helped make sure the DASS-21 test could accurately measure stress, anxiety, and depression in different groups of students and patients with known mental health issues. Researchers tested the DASS-21 on many people to create standard scores. They used information from 1794 regular adults (not patients) to help understand what the scores mean (Henry & Crawford, 2005). The DASS-21 works just as well as the longer DASS-42 version. When researchers tested its reliability and accuracy, they found that it performed well to very good levels (Antony et al., 1998). Hence, the researcher adopted the translated version that is developed by Alzahrani (2019).

The scale was translated by the writer Abdullah bin Ahmed Al-Zahrani into Arabic, and was presented to specialists in the English language to ensure the integrity of the translation. Appropriate modifications were made in light of their comments and opinions. It was also translated backwards from Arabic to English.

2.4.2.2 Reliability and Validity of the Arabic version

To verify the internal consistency of the scale, the researcher performed two types of tests. First, the researcher examined how each question contributed to the total score of its respective section. Then, the researcher checked how each question connected to the overall scale score. The researcher used the Pearson method to measure the relationships between the answers from all the participants in the study. It was found that all values of correlation coefficients in The DASS scale items, with a total score of the scale, ranged between (.781 -.472.). After that, the researcher found that they are statistically significant values at the level of (0.01). So, this indicates that DASS has a high degree of internal consistency.

The reliability coefficient for the scale as a whole was (0.94) using the Alpha-Cronbach coefficient, while the reliability coefficient using split-half was (0.87), and the reliability coefficient using the Guttman coefficient was (0.86), which are high reliability coefficients.

2.5 Statistical Analysis

The analysis of the current study was performed using SPSS V. 22 to elicit the results. The study employed several statistical tests to analyse the data. The researchers aimed to see whether specific personal factors impacted mental health scores on the DASS-21 test. The researcher selected age, gender, where people live, and their income. To determine if these factors were associated with mental health outcomes, the researcher employed Chi-square tests. This method helped the researcher to identify which personal characteristics were most closely linked to people's mental health.

Additionally, the researcher used “Kendall's tau_b correlation and Spearman's rho” to examine the coefficients of the correlation analysis between coping with university life and mental health indicators (stress, anxiety, and depression) outcomes, measured by the Brief Coping Scores. Also, mean rank comparisons were conducted to assess differences in coping strategies across various demographic groups. This approach facilitated an

understanding of how different factors influence students' coping mechanisms in both co-educational and non-co-educational settings.

2.6 Ethical considerations

The researchers conducted this study after getting permission from NNU's Institutional Review Board (IRB) with reference number Mas. Nov. 2022/20. This board makes sure research follows proper rules and protects people. Before the study began, all participants agreed to take part. The researchers also explained important information to everyone involved.

Chapter Three

Results

3.1 Introduction

The researcher presents results obtained from second-year students at NNU. The researcher compared students from co-educational and non-co-educational high schools to study their stress, anxiety, depression levels, and how they cope with university life. The researcher also also examined the relationship between mental health and coping as well as checked how mental health and coping connect to demographic factors (age, gender, place of residence, family monthly income) .

Additionally, the researcher used statistical analyses like mean scores, standard deviations, correlations, ANOVA results, and multiple comparisons to understand the differences between these groups. The tables below present a detailed analysis of the study data. These data give a good understanding of what affects students' mental health and coping strategies. The researcher aims to find patterns, trends, and meaningful connections between different factors. The tables also discuss many topics. They compare stress, anxiety, and depression symptoms between students from different school types. They also show connections between mental health measures and coping strategies, and how age affects the ways students cope with challenges.

Table (1)*Demographic Characteristics of Study Participants*

Variable	Frequency	Percent
Age		
18-20	253	86.1
21-23	39	13.2
More than 24 years	2	0.7
Total	294	100.0
Gender		
Male	117	39.8
Female	177	60.2
Total	294	100.0
Type of School		
Co-Educational	147	50.0
Non-Co-Educational	147	50.0
Total	294	100.0
Place		
City	192	65.3
Village	96	32.7
Refugee Camp	6	2.0
Total	294	100.0
Income		
Less than \$600	24	8.2
More than \$600	270	91.8
Total	294	100.0

The above table presents a detailed information about the study sample (294). It presents their age, gender, school type, where they live, and income. This information helps the researcher understand the study sample and gives context for the study data. The sample in this study is 294. Around 86.1% are between 18 and 20 years old. This is to say that the sample consists of young individuals. However, the 21-23 age group includes 39 participants. They represent 13.2% of the study sample. Additionally, only 2 participants (0.7%) are over 24 years old. This is to say the majority of the study sample are aged between 18 and 20, and are an excellent age group to help the researcher answer the study questions.

The gender distribution shows a higher number of females, with 177 individuals (60.2%), compared to 117 males (39.8%). This indicates a gender imbalance in the sample, which could have implications for data analysis, particularly if gender-related factors are significant in the study.

The sample is split between individuals who attended co-educational schools and those who attended non-co-educational schools, with each category comprising 147 individuals, or 50% of the sample. This equal distribution allows for comparisons between these two educational environments, potentially highlighting differences in experiences or outcomes based on the type of schooling.

A significant majority of the sample, 192 individuals (65.3%), reside in cities. Villages are home to 96 individuals (32.7%), while only 6 individuals (2.0%) live in refugee camps. This distribution indicates a predominantly urban sample, which may reflect different socio-economic conditions and access to resources compared to those living in rural or refugee camp settings. In terms of income, 270 individuals (91.8%) have an income of more than \$600, while only 24 individuals (8.2%) earn less than \$600. This is to say that the sample is primarily individuals with higher income levels. So, it can be concluded that it influences their perspectives and experiences.

3.2 Results of the study

3.2.1 First hypothesis

There are no statistically significant differences at (p-value = 0.05) in anxiety, stress, and depression among Co-Educational Versus Non-Co-Educational Secondary Schools among the second-year students at NNU.

Table (2)

Prevalence and Comparison of Stress, Anxiety, and Depression Symptoms between Co-Educational and Non-Co-Educational students

Type of School	Classification	Count and % (Co-Educational)	Count and % (Non-Co-Educational)	Count and % (Total)	Chi-Square Value	P value
Stress Severity	Normal	131 (44.6%)	7 (2.4%)	138 (46.9%)	225.243	.000
	Mild	12 (4.1%)	16 (5.4%)	28 (9.5%)		
	Moderate	3 (1.0%)	30 (10.2%)	33 (11.2%)		
	Severe	1 (0.3%)	24 (8.2%)	25 (8.5%)		
	Very Severe	0 (0.0%)	70 (23.8%)	70 (23.8%)		
Total for Stress		147 (50.0%)	147 (50.0%)	294 (100.0%)		
Anxiety Severity	Normal	134 (45.6%)	21 (7.1%)	155 (52.7%)	180.830	.000
	Mild	3 (1.0%)	7 (2.4%)	10 (3.4%)		
	Moderate	6 (2.0%)	14 (4.8%)	20 (6.8%)		
	Severe	1 (0.3%)	14 (4.8%)	15 (5.1%)		
	Very Severe	3 (1.0%)	91 (31.0%)	94 (32.0%)		
Total for Anxiety		147 (50.0%)	147 (50.0%)	294 (100.0%)		
Depression Severity	Normal	137 (46.6%)	34 (11.6%)	171 (58.2%)	151.773	.000
	Mild	4 (1.4%)	10 (3.4%)	14 (4.8%)		
	Moderate	5 (1.7%)	46 (15.6%)	51 (17.3%)		
	Severe	1 (0.3%)	19 (6.5%)	20 (6.8%)		
	Very Severe	0 (0.0%)	38 (12.9%)	38 (12.9%)		
Total for Depression		147 (50.0%)	147 (50.0%)	294 (100.0%)		

Students from mixed-gender and single-gender schools were compared to see how stressed, anxious, and depressed they felt. Researchers grouped the mental health results into five different levels: normal, mild, moderate, severe, and very severe. The type of school seemed to make a difference in how students felt mentally. Chi-square numbers were calculated to check the statistical significance of the relationships.

Regarding stress severity, the data shows that normal stress levels are significantly more common among students in co-educational schools, with 44.6% of students falling in this category, compared to only 2.4% in non-co-educational schools. However, as stress levels rise, non-co-educational students exhibit much higher percentages of moderate (10.2%), severe (8.2%), and very severe stress (23.8%) compared to their co-educational counterparts. The total number of students experiencing stress is equally distributed between both school types, but the Chi-Square value of 225.243 ($p = .000$) indicates a highly significant association between school type and stress severity, suggesting non-co-educational settings have a more substantial population of students who have higher stress levels.

For anxiety severity, a similar trend emerges. Co-educational students report much higher normal anxiety levels, with 45.6% of students in this category, compared to just 7.1% in non-co-educational schools. Conversely, very severe anxiety is far more prevalent in non-co-educational schools, with 31.0% of students affected, while only 1.0% of co-educational students experience anxiety at this level. The Chi-Square value for anxiety severity (180.830, $p = .000$) confirms a strong and statistically significant relationship between school type and anxiety, further reinforcing the pattern of higher mental health concerns among students in non-co-educational settings.

In terms of depression severity, the data again points to a substantial difference between the two types of schools. Co-educational students show significantly higher rates of normal depression (46.6%) compared to 11.6% in non-co-educational schools. As the severity of depression increases, the proportion of affected students is much higher in non-co-educational schools, particularly for moderate (15.6%) and very severe depression (12.9%). The Chi-Square value of 151.773 ($p = .000$) indicates that the relationship between school type and depression severity is highly significant, with non-co-educational schools seeing a far greater impact of depression on their students.

In summary, the table reveals a clear and statistically significant correlation between the type of school and the mental health conditions of students. Co-educational schools appear to have a protective effect, with higher rates of normal mental health outcomes and lower rates of severe stress, anxiety, and depression. In contrast, non-co-educational schools demonstrate a higher prevalence of students experiencing severe and very severe levels of these mental health issues.

3.2.2 Results of the second hypothesis

There are no statistically significant differences at (p-value = 0.05) in coping with university life among Co-Educational Versus Non-Co-Educational Secondary Schools among the second-year students at NNU.

Table (3)

"Distribution of Coping Abilities Among University Students by Type of School and Coping Classification"

	type of school						Total		
	Co-Educational			Non-Co-Educational					
	Coping with university life		Total	Coping with university life		Total	Coping with university life		
	Moderate Coping Ability	Low Coping Ability		Moderate Coping Ability	Low Coping Ability		Moderate Coping Ability	Low Coping Ability	
Count	133	14	147	60	87	147	193	101	294
% of Total	45.2%	4.8%	50.0%	20.4%	29.6%	50.0%	65.6%	34.4%	100.0%

The relationship between coping abilities and type of school (co-educational vs. non-co-educational) among university students was analyzed. The findings revealed that among students from co-educational schools, 45.2% exhibited moderate coping ability, while 4.8% demonstrated low coping ability, contributing to a total of 50.0% of the sample. Similarly, for students from non-co-educational schools, 20.4% displayed moderate coping ability, and 29.6% showed low coping ability, also totaling 50.0% of the sample. When comparing the total distribution of coping abilities, 65.6% of students demonstrated moderate coping ability, while 34.4% exhibited low coping ability, yielding an overall sample size of N = 294. These results indicate a notable variation in coping abilities between students from co-educational and non-co-educational schools.

Table (4)*Differences in Coping Abilities by Type of School*

Type of School	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Wilcoxon W	Z	P value
Co-Educational	147	196.83	28,934.00	3,553.000	14,431.000	-	.000
Non-Co-Educational	147	98.17	14,431.00			9.961	
Total	294						

The researcher aimed to find out if students handle stress differently depending on whether they go to mixed-gender schools or single-gender schools. The researcher used a special statistical test called “Mann-Whitney U” to check if the differences were significant. Results indicate a statistically significant difference in coping abilities based on the type of school, $U = 3,553.00$, $Z = -9.961$, $p < .001$.

Students from co-educational schools had a higher mean rank ($Mdn = 196.83$) compared to students from non-co-educational schools ($Mdn = 98.17$). The sum of ranks for co-educational school students was 28,934.00, while the sum of ranks for non-co-educational school students was 14,431.00.

These findings indicate that students from co-educational schools demonstrated significantly higher coping abilities than those from non-co-educational schools.

3.2.3 Results of the third hypothesis

There is no statistically significant at ($p\text{-value} = 0.05$) relationship between psychological scores and coping with university life in co-educational Versus non-co-Educational Secondary Schools among second-year students at NNU.

Table (5)

Correlation Coefficients between Coping with University Life and Psychological Scores by Type of School

type of school		Coping with the University Life		
Co-Educational	Kendall's tau_b	stress score	Correlation Coefficient	-0.325
			P value	.000
			N	147
		anxiety score	Correlation Coefficient	-0.328
			P value	.000
			N	147
	depression score	Correlation Coefficient	-0.187	
		P value	.004	
		N	147	
	Spearman's rho	stress score	Correlation Coefficient	-0.400
			P value	.000
			N	147
anxiety score		Correlation Coefficient	-0.397	
		P value	.000	
		N	147	
depression score	Correlation Coefficient	-0.239		
	P value	.004		
	N	147		
Non-Co-Educational	Kendall's tau_b	stress score	Correlation Coefficient	-0.395
			P value	.000
			N	147
		anxiety score	Correlation Coefficient	-0.390
			P value	.000
			N	147
	depression score	Correlation Coefficient	-0.237	
		P value	.000	
		N	147	
	Spearman's rho	stress score	Correlation Coefficient	-0.529
			P value	.000
			N	147
anxiety score		Correlation Coefficient	-0.541	
		P value	.000	
		N	147	
depression score	Correlation Coefficient	-0.332		
	P value	.000		
	N	147		

The researcher found significant relationships between how students cope with problems and their mental health issues in both co-educational and non-co-educational school settings. These findings are outlined below.

Students in mixed-gender schools used better ways to handle problems, and their mental health improved. They had less stress, worry, and depression for those who had good coping skills. Kendall's tau-b correlation coefficients for stress (-0.325, $p < 0.001$), anxiety (-0.328, $p < 0.001$), and depression (-0.187, $p < 0.01$) highlight meaningful relationships between coping effectiveness and these mental health outcomes. Furthermore, Spearman's rho coefficients provide additional support for these findings, with stronger negative correlations for stress (-0.400, $p < 0.001$) and anxiety (-0.397, $p < 0.001$), while depression shows a more modest relationship (-0.239, $p < 0.01$). These results indicate that students who learn to handle problems effectively tend to feel significantly less stressed and worried. Thus, it can be concluded that effective coping skills are important for reducing psychological distress in co-educational settings, particularly for managing stress and anxiety.

In non-co-educational schools, the correlations between coping strategies and psychological distress were found to be even stronger, emphasizing the pronounced impact of effective coping mechanisms on mental health. Kendall's tau-b correlation coefficients for stress (-0.395, $p < 0.001$), anxiety (-0.390, $p < 0.001$), and depression (-0.237, $p < 0.001$) indicate significant associations. Similarly, Spearman's rho coefficients show stronger negative correlations for stress (-0.529, $p < 0.001$), anxiety (-0.541, $p < 0.001$), and depression (-0.332, $p < 0.001$). These results suggest that students in non-co-educational schools may face unique stressors that amplify the relationship between poor coping strategies and heightened psychological distress.

Students who learn good ways to handle problems have fewer mental health issues and their psychological well-being improves significantly. These coping strategies are also helpful regardless of the high school they attended as students. Good coping strategies is essential for the mental health of students from single-sex schools. This means that those who are enrolled at these schools might face extra pressures that make developing coping skills even more important to them. These results have implications for how universities should help students. Schools should focus on programs that build students' coping skills for those from single-sex schools, where stress and anxiety are more closely related to

how well students cope. Programs designed for the specific challenges of single-sex school graduates can reduce psychological distress. Also, universities should run mental health awareness campaigns and provide easy-to-access resources to help students develop effective ways of handling stress.

In conclusion, the results show the effectiveness of coping strategies in reducing psychological distress among university students. While both co-educational and non-co-educational settings exhibit significant correlations, the stronger relationships observed in non-co-educational schools suggest a need for targeted interventions.

3.2.4 Results of the study fourth hypothesis

There are no statistically significant at (p -value = 0.05) interactions between demographic variables (gender, age, residence, type of education in secondary schools, family monthly income) on the relationship between Co-Educational Versus Non-Co-Educational Secondary Schools and psychological effects (anxiety, stress, and depression) and coping with the University Life for second-year students at NNU.

Table (6)

"Differences in DASS-21 Scores (Stress, Anxiety, and Depression) Across Demographic Variables (Age, Gender, Place, and Income) in Co-Educational and Non-Co-Educational Schools

Type of School	Category	Classification	Classification					Total	Chi-Square	p value
			Normal	Mild	Moderate	Severe	Very Severe			
Co-Educational	Age	18-20	74.8%	6.8%	1.4%			83.0%	11.197a	.082
		21-23	13.6%	0.7%	0.7%	0.7%		15.6%		
		More than 24 years	0.7%	0.7%				1.4%		
Non-Co-Educational	Age	Total	89.1%	8.2%	2.0%	0.7%		100.0%	16.362b	.003
		18-20	3.4%	10.9%	16.3%	12.2%		46.3%		
		21-23	1.4%		4.1%	4.1%	1.4%	10.9%		
Co-Educational	Gender	Male	35.4%	4.1%	1.4%			40.8%	2.007a	.571
		Female	53.7%	4.1%	0.7%	0.7%		59.2%		
		Total	89.1%	8.2%	2.0%	0.7%		100.0%		
Non-Co-Educational	Gender	Male	1.4%	4.8%	10.9%	4.8%	17.0%	38.8%	4.362b	.359
		Female	3.4%	6.1%	9.5%	11.6%	30.6%	61.2%		
		Total	4.8%	10.9%	20.4%	16.3%	47.6%	100.0%		
Co-Educational	Place	City	68.0%	6.1%	2.0%	0.7%		76.9%	1.248a	.741
		Village	21.1%	2.0%				23.1%		
		Total	89.1%	8.2%	2.0%	0.7%		100.0%		
Non-Co-Educational	Place	City	3.4%	8.8%	10.9%	9.5%	21.1%	53.7%	11.431b	.178
		Village	1.4%	2.0%	8.2%	5.4%	25.2%	42.2%		
		Refugee Camp			1.4%	1.4%	1.4%	4.1%		
Co-Educational	Income	Less than 600\$	0.7%		0.7%			1.4%	23.379a	.000
		More than 600\$	88.4%	8.2%	1.4%	0.7%		98.6%		
		Total	89.1%	8.2%	2.0%	0.7%		100.0%		
Non-Co-Educational	Income	Less than 600\$	0.7%	0.7%	3.4%	4.1%	6.1%	15.0%	3.169b	.530
		More than 600\$	4.1%	10.2%	17.0%	12.2%	41.5%	85.0%		
		Total	4.8%	10.9%	20.4%	16.3%	47.6%	100.0%		
Co-Educational	Anxiety	18-20	77.6%	1.4%	2.7%	0.7%	0.7%	83.0%	18.020a	.021
		21-23	12.9%	0.7%	0.7%		1.4%	15.6%		
		More than 24 years	0.7%		0.7%			1.4%		
Non-Co-Educational	Anxiety	18-20	12.9%	4.1%	8.8%	7.5%	55.8%	89.1%	2.023b	.732
		21-23	1.4%	0.7%	0.7%	2.0%	6.1%	10.9%		
		Total	14.3%	4.8%	9.5%	9.5%	61.9%	100.0%		
Co-Educational	Gender	Male	37.4%	0.7%	1.4%		1.4%	40.8%	1.731a	.785
		Female	53.7%	1.4%	2.7%	0.7%	0.7%	59.2%		
		Total	91.2%	2.0%	4.1%	0.7%	2.0%	100.0%		
Non-Co-Educational	Gender	Male	4.8%	2.0%	6.8%	4.1%	21.1%	38.8%	12.059b	.060
		Female	8.2%	3.4%	2.7%	5.4%	42.2%	61.2%		
		Total	14.3%	4.8%	9.5%	9.5%	63.3%	100.0%		

This table compares the distribution of DASS-21 classifications across different categories of school type (co-educational and non-co-educational) according to age, gender, place of residence, and income. The Chi-Square values and significance levels are also presented to indicate the strength of the relationship between school type and the distribution of scores across these categories.

Age:

For the co-educational school type, the largest group falls within the 18-20 age range, with the majority of students (74.8%) classified as "normal" in their DASS-21 scores, while very few display moderate or severe levels. In contrast, non-co-educational schools show a more varied distribution, with fewer students classified as "normal" (3.4%) and a higher proportion experiencing moderate to severe stress, anxiety, or depression (46.3% total). The Chi-Square value (16.362, $p = .003$) indicates a significant difference in DASS-21 scores by age between these school types.

Gender:

In co-educational schools, males and females are predominantly classified as "normal" (35.4% and 53.7%, respectively), with very few showing more mental stress. However, non-co-educational schools show a broader spread, particularly among males (17.0%) and females (30.6%) experiencing moderate to severe stress. The Chi-Square values for gender (2.007 and 4.362, $p = .571$ and $.359$, respectively) suggest no significant relationship between school type and gender regarding the distribution of DASS-21 scores.

Place:

Most students from co-educational schools come from cities (68.0%), with a majority falling under the "normal" category. However, students from non-co-educational schools exhibit a wider distribution across cities, villages, and refugee camps, with a higher percentage facing moderate to severe levels of distress. The Chi-Square value for non-co-educational schools (11.431, $p = .178$) suggests no significant association between school type and place of residence.

Income:

In co-educational schools, students from higher-income households (more than \$600) overwhelmingly fall under the "normal" category (88.4%), while lower-income students show minimal representation. In non-co-educational schools, however, lower-income students are more likely to experience moderate to severe stress, anxiety, or depression, with 6.1% of these students classified as severe. The Chi-Square value (23.379, $p = .000$) indicates a significant difference in DASS-21 scores between students from different income brackets in co-educational schools, but no significant relationship is found in non-co-educational schools.

The table highlights notable distinctions in the DASS-21 classifications between co-educational and non-co-educational school types across several demographic variables. Co-educational schools generally have a higher number of students classified as "normal" across all categories, while non-co-educational schools show a broader distribution of mild to severe stress, anxiety, and depression. Differences were found in the relationship between age and income, as well as in the distribution of DASS-21 scores, particularly in co-educational schools. Gender and place, however, did not show a significant relationship with school type in this dataset.

Table (7)

"Comparison of Coping with University Life Across Demographic Variables in Co-Educational and Non-Co-Educational Schools"

Type of School	Variable	Category	N	Mean Rank	Chi-Square	p value
Co-Educational	Coping with University Life	18-20 years	122	76.22	4.889	.087
		21-23 years	23	67.46		
		More than 24 years	2	14.00		
Non-Co-Educational	Coping with University Life	Total	147		.800	.371
		18-20 years	131	72.90		
		21-23 years	16	82.97		
Co-Educational	Coping with University Life	Male	60	65.33	4.246	.039
		Female	87	79.98		
		Total	147			
Non-Co-Educational	Coping with University Life	Male	57	65.66	3.588	.058
		Female	90	79.28		
		Total	147			
Co-Educational	Coping with University Life	City	113	80.17	10.345	.001
		Village	34	53.50		
		Total	147			
Non-Co-Educational	Coping with University Life	City	79	81.43	5.359	.069
		Village	62	64.77		
		Refugee Camp	6	71.50		
		Total	147			
Co-Educational	Coping with University Life	Less than 600\$	2	9.00	4.768	.029
		More than 600\$	145	74.90		
		Total	147			
Non-Co-Educational	Coping with University Life	Less than 600\$	22	77.98	.227	.634
		More than 600\$	125	73.30		
		Total	147			

The table compares how students cope with university life based on various demographic variables in the two types of schools. The data reveal notable differences in coping mechanisms, particularly when assessed by age, gender, location, and income level.

Age plays a significant role in coping strategies among co-educational students. The mean rank for those aged 18-20 is 76.22, indicating relatively better coping compared to older groups, whose ranks drop sharply, particularly for those over 24 years old, who had a mean rank of only 14. This suggests that younger students may be more adaptable to university life challenges. In contrast, non-co-educational students show a less pronounced disparity, with the highest mean rank at 82.97 for the 21-23 age group, suggesting they might develop coping strategies later compared to their co-educational counterparts.

Gender differences also emerge prominently in the data. In co-educational settings, female students have a higher mean rank (79.98) than males (65.33), indicating that they might employ more effective coping mechanisms. The significance level ($p = .039$) further highlights that this difference is statistically relevant. Conversely, in non-co-educational environments, the difference is less marked, with male students showing a mean rank of 65.66 compared to females at 79.28, with a p -value of .058, approaching significance.

The influence of location is particularly striking in co-educational schools, where students from urban areas (mean rank 80.17) cope significantly better than their rural counterparts (mean rank 53.50), as indicated by a chi-square value of 10.345 ($p < .001$). This suggests that access to urban resources and support systems may foster better coping skills. In non-co-educational schools, students in cities also show a slightly higher mean rank (81.43) compared to those in villages (64.77) and refugee camps (71.50), although the differences are not as pronounced.

Finally, income level reveals stark contrasts in coping abilities, especially in co-educational schools. Students with incomes below \$600 have an alarmingly low mean rank of 9.00, suggesting severe difficulties in coping, while those with incomes above this threshold have a mean rank of 74.90 ($p = .029$), emphasizing the impact of financial stability on students' ability to navigate university challenges. In non-co-educational

settings, the mean ranks are more balanced, indicating that income may not play as crucial a role in coping strategies.

Overall, this table illustrates the multifaceted nature of coping with university life, revealing that factors such as age, gender, location, and income significantly influence students' coping mechanisms. These insights can inform interventions aimed at improving support systems for students, particularly those facing challenges in co-educational environments.

Chapter Four

Discussion and conclusion

4.1 Discussion

4.1.1 Discussion of the first hypothesis

The analysis of stress, anxiety, and depression severity among students from co-educational as well as non-co-educational schools reveals significant disparities in mental health outcomes based on school type.

A notable finding is that 44.6% of co-educational students report normal stress levels, compared to only 2.4% in non-co-educational settings. Conversely, non-co-educational students show much higher rates of moderate (10.2%), severe (8.2%), and very severe stress (23.8%). The Chi-Square value of 225.243 ($p = .000$) indicates a highly significant relationship, suggesting that students in non-co-educational schools are more likely to experience higher stress levels. The findings regarding stress severity among students in co-educational versus non-co-educational schools reveal significant discrepancies in mental health outcomes. There is a general agreement across multiple studies that co-educational environments contribute positively to students' psychological well-being, fostering resilience and healthier coping mechanisms (Eze et al., 2024; Rigby, 2020). This is similar to the idea that social interaction and support from friends in co-education schools can protect students from stress. On the other hand, the higher stress levels we found in students from single-sex schools show an urgent need to solve their specific challenges (Fulambarkar et al., 2023).

Researchers argue that differences in stress levels are not about school type but also influenced by family income and personality (Wuthrich et al., 2021). In fact, these could affect how students experience and report stress. Also, students from single-sex schools have higher stress levels. With this in mind, it is important to remember that other elements might influence these results.

The findings also show that there is a need to help students from single-sex schools. This can be done by creating programs that build student coping skills. These programs can also increase the social support among these students. Additionally, these programs will reduce the negative effects of stress during academic exams (Fulambarkar et al., 2023).

Studies show that addressing mental health through education and peer interaction can improve resilience and psychological well-being (Eze et al., 2024).

Results on anxiety show agreement among researchers that students from co-education schools tend to report less anxiety than those from single-sex schools (Eze et al., 2024; Geo et al., 2024). This reflects the supportive social networks in co-education environments (Fulambarkar et al., 2023). The variety of social interactions in co-education encourages students to ask for help and share their experiences. When students ask for help and ask questions, they can reduce their anxiety. These are similar to the results of previous work that found that social support is helpful for mental health. However, some researchers argue that anxiety levels might also be affected by academic pressures, not just whether the school is co-education or single-sex (Wuthrich et al., 2021). Things like how intense the curriculum is, competition between students, and teacher expectations can increase anxiety.

The findings show that schools should implement mental health programs to help students from single-sex schools (Fulambarkar et al., 2023). Addressing these students' anxieties, like feeling socially isolated or pressured to perform well, can improve their mental health. Further, schools should focus on activities that encourage friendships and teach about mental health (Eze et al., 2024).

So, there are difference between students from co-education and single-sex schools. Researchers agree that students from single-sex schools are more likely to experience depression (Eze et al., 2024; Haider et al., 2024). This reflects the weaker social support systems often found in single-sex environments. Isolation these students might experience can make them feel lonely and hopeless (Fulambarkar et al., 2023).

However, there are different opinions about how much school type affects depression compared to other factors like family background and individual personality (Wuthrich et al., 2021). Some researchers say that things like parent involvement, family income, and previous mental health history affect depression levels, regardless of school type. Also, schools can add counseling services to help students overcome their challenges (Eze et al., 2024). In this manner, schools can reduce depression risks. These can also encourage students to ask for help and build resilience in the long run (Fulambarkar et al., 2023; Rigby, 2020).

4.1.2 Discussion of the second hypothesis

The second hypothesis states no significant difference in coping abilities between co-educational and non-co-educational students. Mann-Whitney U test showed the opposite results. It found co-educational students have higher coping abilities ($U = 3,553.00$, $p < .001$). So, social interactions and supportive school climates influence students' capacity to manage academic stress.

Geo et al. (2024) studied self-esteem and assertiveness among teenage girls in both single-sex and co-education schools and found no significant differences. However, this is different from the findings of this study. It is worth noting that there is a distinction between self-esteem/assertiveness and coping abilities. Co-education environments might not change how students feel about but can provide wider friend networks that build resilience.

Wuthrich et al. (2021) found that coping abilities in teenagers improve over time and are strongly influenced by things like connections with friends.

Co-education can develop peer support. It gives students more chances to discuss challenges, share strategies, and develop coping skills. Similarly, Rigby (2020) added that teacher involvement and social support reduce emotional distress. These supports may be more available in co-education schools where mixed-gender interaction encourages open communication. Other work by Rigby (2020) focuses on bullying among students. The broader point of their work is that a culture of teamwork and inclusion significantly helps students cope effectively. Also, research shows that mental health programs can work in socially active environments. For example, Eze et al. (2024) added that mental health education reduces psychological distress. Fulambarkar et al. (2023) also confirmed that mindfulness practices effectively lower stress. These approaches may fit more naturally into co-education settings. As a result, students can benefit from these programs and indirectly from socially supported coping.

Haider et al. (2024) also studied the minority or marginalized groups. In co-education schools, this shows up as interactions with peers from different backgrounds and genders that show perspectives and improving adaptability. This sense of belonging can increase students' willingness to seek help when needed to build coping strategies.

Taken together, these studies reinforce the current findings: the significantly higher coping abilities found in co-educational students appear to stem from enriched peer engagement, institutional support, and the ease with which mental health programs can be adopted in mixed-gender settings. By contrast, non-co-educational environments may lack these integrative elements, leading to fewer peer connections and a narrower set of coping resources. Accordingly, school administrators and policymakers should consider initiatives that replicate the benefits of co-educational environments—such as peer mentoring, inclusive extracurricular activities, and open-discussion forums—in non-co-educational contexts. Through such targeted efforts, all students can be empowered to develop more effective coping mechanisms and maintain healthier psychological well-being.

4.1.3 Discussion of the third hypothesis

The analysis of coping strategies and their relationship with mental health indicators—specifically stress, anxiety, and depression—provides significant insights into how co-educational and non-co-educational environments shape students' psychological well-being.

In co-educational settings, the findings reveal notable negative correlations between effective coping strategies and mental health issues, indicating that students who employ better coping mechanisms tend to experience reduced levels of stress, anxiety, and depression. Kendall's tau_b coefficients (−0.325 for stress, −0.328 for anxiety, and −0.187 for depression) suggest meaningful relationships between coping effectiveness and psychological distress, while Spearman's rho coefficients (−0.400 for stress and −0.397 for anxiety) corroborate these observations. These results match previous studies that show how good coping helps control emotions and reduce psychological problems. Geo et al. (2024) found that students with effective coping strategies showed more resilience when facing academic challenges. Similarly, Rigby (2020) found that structured programs teaching coping skills help students handle the stresses of university life.

In contrast, students from single-sex schools have stronger negative connections between coping strategies and mental health problems. The statistical measures (Kendall's tau_b coefficients of −0.395 for stress, −0.390 for anxiety, and −0.237 for depression, and

Spearman's rho coefficients of -0.529 for stress, -0.541 for anxiety, and -0.332 for depression) show a relationship compared to co-educational schools. These connections indicate that students in single-sex schools may face social isolation or limited exposure to different peer interactions which can make it harder to develop good coping skills (Haider et al., 2024). These findings align with broader research (Wuthrich et al., 2021). Their study showed that peer connections affect mental health outcomes. The results are also similar to Fulambarkar et al. (2023). They concluded that mindfulness techniques reduce psychological distress in different educational settings.

Schools should include mental health education in their curriculum to give students practical tools (workshops, peer support groups, and counseling services) for handling the psychological demands of university life (Eze et al., 2024; Rigby, 2020). This also reduces the social and academic pressures that worsen psychological distress (Haider et al., 2024). The researcher believes that both school types need these programs to improve students' coping skills. Also, single-sex schools should focus on the specific challenges their students face. There are many examples of how they can do that through mindfulness training, emotional regulation techniques, and opportunities for mixing with other students through workshops with other schools (Fulambarkar et al., 2023). Approaches involving teachers, counselors, and families working together may further ensure students receive consistent support to maintain wellbeing at school and home (Geo et al., 2024).

4.1.4 Discussion of the fourth hypothesis

The comparative analysis of DASS-21 classifications across different school types—co-educational and non-co-educational—reveals significant findings to age, gender, place of residence, and income.

The hypothesis examined the relationship between demographic factors—age, gender, place of residence, and income—and mental health outcomes, as measured by the DASS-21 scores, in co-educational versus non-co-educational school settings.

In a comparative analysis of mental health across different school environments, the findings revealed that 74.8% of students aged 18-20 in co-educational schools were classified as "normal," in stark contrast to only 3.4% in non-co-educational schools, where 46.3% reported moderate to severe distress (Chi-Square = 16.362, $p = .003$). While students in co-educational settings exhibited minimal distress, with no significant gender-

related differences (Chi-Square values = 2.007 and 4.362, $p = .571$ and $.359$), non-co-educational schools saw 17.0% of males and 30.6% of females experiencing notable stress. Additionally, the majority of co-educational students hailed from urban areas, correlating with their higher rates of normal classification; however, no significant association was found between school type as well as place of residence (Chi-Square = 11.431, $p = .178$). Income also played a critical role, with 88.4% of higher-income students in co-educational schools classified as "normal," while 6.1% of lower-income students in non-co-educational settings faced severe distress (Chi-Square = 23.379, $p = .000$), underscoring the significant impact of socio-economic factors in these environments.

The findings highlight a significant disparity in mental health outcomes between students in the two types of schools, particularly influenced by age and income. In co-educational settings, social support and better coping mechanisms contribute a favorable mental health profile, aligning with Geo et al. (2024), who noted that effective coping strategies are associated with reduced psychological distress. Students in single-sex schools had different levels of self-esteem and confidence in speaking up for themselves. These differences affected their mental health.

The concerning mental health patterns in single-sex schools show that there is an urgent need for support. Haider et al. (2024) study showed that non-Muslim students faced unique difficulties and needed support systems. Also, Rigby's (2020) study added that effective interventions can improve mental health. These programs can reduce bullying, so there is a need for such targeted programs.

The lack of major gender differences in mental health results, as shown by our Chi-Square analysis, suggests that factors like family income may impact students' mental health more than gender does. This matches the earlier studies about how coping skills are important, but system-level factors affect students' psychological well-being. The results indicate that co-education schools provide a more supportive environment that leads to better mental health outcomes. In contrast, the concerning trends we observed in single-sex schools require specific strategies to address students' mental health challenges, particularly regarding age and income.

The comparison of how students cope with university life, based on age, gender, location, and income in co-education and single-sex schools, shows differences among them. The researcher found that age plays a key role as younger students (18-20 years) in co-education schools show adaptability (mean rank = 76.22) compared to older students (over 24 years, mean rank = 14). This is to say that younger students have greater resilience. In contrast, non-co-educational students show a peak mean rank (82.97) in the 21-23 age group, suggesting a delayed development of coping strategies. Gender differences are pronounced in co-educational schools, where female students achieve a higher mean rank (79.98) than males (65.33, $p = .039$), whereas non-co-educational schools exhibit less significant differences (females = 79.28, males = 65.66, $p = .058$). The location significantly impacts coping abilities, particularly in co-educational environments, where urban students have a mean rank of 80.17 versus 53.50 for rural students (Chi-Square = 10.345, $p < .001$). In non-co-educational settings, urban students still outperform their rural and refugee camp peers, though differences are less pronounced. Income level also plays a critical role, especially in co-educational schools, where students earning below \$600 have a very low mean rank (9.00), while those above this threshold score significantly higher (74.90, $p = .029$). In non-co-educational environments, mean ranks are more evenly distributed, indicating a lesser impact of income on coping strategies.

Overall, these findings underscore the complex interplay of demographic factors that shape coping mechanisms among university students. The pronounced disparities between co-educational and non-co-educational students suggest that tailored interventions are necessary, particularly in co-educational environments where students may face unique challenges. This aligns with previous studies indicating that co-educational settings generally foster better mental health outcomes, as seen in DASS-21 scores where 74.8% of co-educational students aged 18-20 were classified as "normal," compared to only 3.4% in non-co-educational schools ($p = .003$). Additionally, financial stability is critical for coping, reinforcing the notion that addressing socio-economic disparities can enhance resilience and well-being among students.

The analysis of coping strategies among university students, differentiated by demographic data, reveals significant trends that resonate with previous studies on mental health and educational environments. In co-educational settings, the finding that younger

students (aged 18-20) exhibit superior adaptability compared to their older peers goes in line with previous work. Literature review from several previous work indicated that younger individuals tend to display greater resilience and flexibility in coping with academic pressures (Smith et al., 2022). This suggests that younger students may benefit from the social dynamics inherent in co-educational environments, which can foster adaptive coping mechanisms (Johnson & Burns, 2023).

Gender differences in coping strategies, with female students in co-educational schools reporting higher mean ranks than males (79.98 vs. 65.33, $p = .039$), echo findings from other studies that highlight the tendency for females to utilize more effective emotional and social coping strategies. However, the less pronounced gender differences in non-co-educational settings may suggest that the absence of mixed-gender interactions could limit the development of diverse coping strategies among both genders (Johnson & Burns, 2023).

Income level can affect coping abilities in co-education schools. The difference between lower-income students (mean rank 9.00) and those earning above \$600 (mean rank 74.90, $p = .029$) supports earlier research linking financial stability to better mental health and academic performance (Martin Jr, 2021). In contrast, the more spread rankings in single-sex schools suggest that money problems may have less impact on coping strategies in those environments. Community support or friendships are important and affect building resilience (Hassan et al., 2023). Our findings add to existing research on mental health challenges faced by university students in single-sex schools, where many experience moderate to severe distress (46.3% in single-sex schools, according to DASS-21 results). This also shows we need targeted programs to address the specific needs of students in different school environments for students who are struggling with financial problems and mental issues. Such programs could strengthen support systems that build resilience and well-being among university students (Choudhury, 2024).

4.2 Conclusion

This study shows how high school type (co-education versus single-sex) affects the mental health and coping strategies of second-year students at NNU. This finding shows that students in mixed schools (co-education schools) have better mental health than those in single-sex schools. Students in mixed schools experience lower levels of stress,

anxiety, depression, and better ways of dealing with problems and challenges. In contrast, students from single-sex schools face psychological challenges and higher levels of moderate to severe stress, anxiety, and depression, and weaker coping abilities. These differences indicate a need to understand how school environments affect psychological well-being and the importance of creating targeted support programs for students from different backgrounds. The study also examined school-type coping abilities to address the second hypothesis that predicted no significant differences in university coping between co-education and single-sex high schools.

Contrary to this hypothesis, the results showed that co-education students had better coping abilities. There was a statistically significant difference in mean ranks between the two groups. This finding concludes that co-education schools' social and academic environment provides more peer interactions. It also promotes emotional expression and resilience. In single-sex schools, the lack of mixed-gender social dynamics limits students' exposure to different viewpoints. This finding matches what other research has found, that students in single-sex schools also had higher levels of stress.

The protective nature of co-education environments comes from the social support and peer interactions these settings naturally provide. Having diverse social dynamics helps students express emotions, build resilience, and manage academic and personal stress better. In contrast, the limited social interactions in single-sex schools may worsen feelings of isolation and prevent the development of effective coping strategies. These findings are in line with earlier work that social connections develop mental health and reduce psychological distress among teenagers and young adults. Also, age, gender, location, as well as income affect these outcomes. Younger students, city residents, and those from wealthier families in co-education schools showed better mental health and coping abilities. These groups benefit from social and economic advantages that strengthen their psychological well-being. On the other hand, students from lower-income families and rural areas from single-sex schools face challenges that affect their mental health.

Co-education school students showed stronger resilience and adaptive coping skills, which were linked to lower stress, anxiety, and depression. This shows how effective coping protects psychological distress. Meanwhile, single-sex school students showed weaker coping abilities closely connected to higher psychological distress, supporting our

finding that limited mixed-gender interactions can restrict coping resources. This result indicates that there must be programs and counselling services that address the specific challenges of single-sex environments.

Based on these findings, schools can develop mental health and resilience among students. They should focus on creating inclusive and supportive environments that build social connections and provide equal access to mental health resources. For single-sex schools, targeted programs should focus on building coping skills, developing resilience, and addressing the limitations caused by reduced social interaction. Creating programs that encourage peer support, emotional awareness, and stress management can significantly improve mental health outcomes for students in these settings. By strengthening coping mechanisms, educators and policymakers can help reduce the gap in mental health outcomes between different school types. Addressing economic inequalities is also essential to closing the gaps in mental health and resilience among students. Providing financial aid, scholarships, and access to mental health services can reduce the challenges faced by students from lower-income families and rural areas. So, schools must recognize how important financial stability is for students' mental health and take active steps to support vulnerable groups.

Finally, adding mental health education to school curricula builds resilience and psychological well-being. Training teachers and staff to recognize signs of psychological distress and provide appropriate help can improve the support available to students who are from single-sex environments, where coping skills may be less developed. In conclusion, our study shows a significant impact of high school type and demographic factors on students' mental health and coping strategies, particularly regarding our second hypothesis, which was rejected. Co-education schools are more supportive for psychological well-being. These can improve academic success and enhance the psychological health of students when they become adults.

4.3 Recommendation

1. Schools should encourage inclusive environments that celebrate diversity and facilitate meaningful interactions among students from varied backgrounds
2. Implement comprehensive programs and initiatives to enhance students' coping skills across all school types.

3. Emphasise cultivating positive peer relationships in co-educational and non-co-educational schools.
4. Proactively address and challenge gender stereotypes and pressures within educational settings and provide opportunities for open dialogue, education on gender equality, and initiatives that promote diversity and inclusivity.
5. Offer personalised support services that recognise and accommodate students' unique needs and preferences.
6. Encourage ongoing research and evaluation to deepen understanding of the multifaceted influences on students' experiences in different school environments.

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Appendices

Appendix A

Consent to participate in scientific research

I am a master's student in clinical psychology at An-Najah National University. I am conducting a study on the Psychological Effect of Co-Educational Versus Non-Co-Educational Secondary Schools Toward Coping With University Life for Second-year Students at An-Najah National University. Scientific research while maintaining complete privacy for you and preserving this information in a manner that is appropriate and commensurate with the ethics of scientific research.

Thank you for your kind participation and acceptance.

Nagham Egbaria

Master's Student in Clinical Psychology

An-Najah National University

Participant's signature:

Researcher's signature:

Appendix B

Depression, Anxiety, and Stress Scale

An-Najah National University

Faculty of Graduate Studies

Master Clinical Psychology

This questionnaire is a part of a master thesis titled "

Psychological Effect of Co-Educational Versus Non-Co-Educational Secondary Schools
Toward Coping With University Life for Second-year Students at An-Najah National
University.

Please answer the questionnaire with complete honesty and objectivity, knowing that
your answers will remain confidential and will only be used for scientific research
purposes.

Thank you for your time and effort.

Section One:

Section A: Personal Information

Gender: Male () Female ()

Age: 18-20 () 21-23 () 24 and above

Type of education in Secondary school: Co-Educational () Non-Co-Educational ()

Residence: City () Village () Camp ()

Family monthly income: less than \$600-() more than \$600()

Section B: Please put an (x) on the one that best fits your opinion:

Depression, Anxiety, and Stress Scale

DASS 21

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all - NEVER

1 Applied to me to some degree, or some of the time - SOMETIMES

2 Applied to me to a considerable degree, or a good part of time - OFTEN

3 Applied to me very much, or most of the time - ALMOST ALWAYS

1- I found it hard to wind down	0	1	2	3
2- I was aware of dryness of my mouth	0	1	2	3
3- I couldn't seem to experience any positive feeling at all	0	1	2	3
4- I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5- I found it difficult to work up the initiative to do things	0	1	2	3
6- I tended to over-react to situations	0	1	2	3
7- I experienced trembling (eg, in the hands)	0	1	2	3
8- I felt that I was using a lot of nervous energy	0	1	2	3
9- I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10- I felt that I had nothing to look forward to	0	1	2	3
11- I found myself getting agitated	0	1	2	3

12- I found it difficult to relax	0	1	2	3
13- I felt down-hearted and blue	0	1	2	3
14- I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15- I felt I was close to panic	0	1	2	3
16- I was unable to become enthusiastic about anything	0	1	2	3
17- I felt I wasn't worth much as a person	0	1	2	3
18- I felt that I was rather touchy	0	1	2	3
19- I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20 - I felt scared without any good reason	0	1	2	3
21- I felt that life was meaningless	0	1	2	3

Appendix C

The Brief COPE Scale- English

Brief COPE (Carver, 1997).

You have done really well – thank you. These next items deal with ways you've been coping with the stress in your life. The stress issue is the 'it' in some of the items! There are many ways to try to deal with problems. These items ask what you've been doing to cope with present stresses. Each item says something about a particular way of coping and please avoid answering on the basis of whether how you've been coping seems to be working or not—just whether or not you're doing it. Use these response choices and try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Coding categories:

1 = I haven't been doing this at all

2 = I've been doing this a little bit

3 = I've been doing this a medium amount

4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape. *
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.

14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.

18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Appendix D

الموافقة لأجل المشاركة في بحث علمي

أنا طالبة ماجستير علم النفس الاكلينيكي من جامعة النجاح الوطنية، أقوم بدراسة حول الأثر النفسي للمدارس المختلطة الثانوية مقابل غير المختلطة في التكيف مع الحياة الجامعية لدى طلبة السنة الثانية في جامعة النجاح الوطنية، فأرجو من حضرتك المشاركة في هذا البحث، علماً أن كافة المعلومات الموجودة سيتم أخذها لغرض البحث العلمي مع الحفاظ على الخصوصية الكاملة لك والحفاظ على هذه المعلومات بما يستوجب ويتناسب مع أخلاقيات البحث العلمي.

أشكر لك حسن المشاركة والقبول احترامي وجزيل شكري

نعم اغبارية

طالبة ماجستير علم النفس الاكلينيكي

جامعة النجاح الوطنية

توقيع المشارك :

توقيع الباحث :

جامعة النجاح الوطنية

Appendix E

مقياس الاكتئاب والتوتر والقلق

كلية الدراسات العليا

ماجستير علم النفس الاكلينيكي

هذا الاستبيان جزء من رسالة الماجستير بعنوان:

الأثر النفسي للمدارس المختلطة الثانوية مقابل غير المختلطة في التكيف مع الحياة الجامعية لدى طلبة السنة الثانية في جامعة النجاح الوطنية .

ارجو منكم القيام بالإجابة على استمارة الاستبيان في كل صدق وموضوعية مع العلم ان الإجابات ستبقى سرية تماماً وستستخدم فقط لأغراض البحث العلمي، وفي هذا الاستبيان لا توجد إجابة صحيحة وأخرى خاطئة، لكن الإجابة الصحيحة هي التي تعبر عنها وجهة نظرك بصراحة وموضوعية وهو ما اطمح اليه لإنجاح هذه الدراسة.

شكراً جزيلاً على وقتك ومجهودك.

القسم الأول:

القسم أ: المعلومات الشخصية

الجنس ذكر () أنثى ()

العمر: 18-20 () 21-23 () 24 فما فوق

نوع التعليم في المدرسة الثانوية : مختلط () غير مختلط ()

السكن: مدينة () قرية () مخيم ()

الدخل الشهري للعائلة: اقل من \$600- () اكثر من \$600 ()

القسم ب: يرجى وضع (x) على الذي يناسب رأيك:

المحلق الأول:

مقياس الاكتئاب والقلق والتوتر

Arabic DASS21

التاريخ:-----

اقرأ كل من النصوص التالية ثم ضع دائرة حول الرقم 0,1,2,3 الذي يبين درجة انطباق هذا الشعور عليك في

الأسبوع الماضي لا توجد إجابات صحيحة او خاطئة لا تقضي وقتاً طويلاً في أي منها

استعمل التقديرات التالية:

0- لا ينطبق على تماماً.

1- ينطبق على بعض الشيء او قليلا من الأوقات.

2- ينطبق على بدرجة ملحوظة او بعض الأوقات.

3- ينطبق علي كثيرا جدا، او معظم الأوقات.

3	2	1	0	وجدت صعوبة في الاسترخاء والراحة	1
3	2	1	0	شعرت بجفاف في حلقي	2
3	2	1	0	لم يبدو لي أن بإمكانني الإحساس بمشاعر إيجابية على الإطلاق	3
3	2	1	0	شعرت بصعوبة في التنفس (شدة التنفس السريع، اللهثان بدون القيام بمجهود جسدي مثلا)	4
3	2	1	0	وجدت صعوبة في أخذ المبادرة بعمل الأشياء	5
3	2	1	0	كنت أميل إلى ردة فعل مفرطة للظروف والأحداث	6
3	2	1	0	شعرت برجفة (باليدين مثلا)	7
3	2	1	0	شعرت بأنني أستهلك الكثير في الطاقة العصبية (شعرت بأنني أستهلك الكثير من قدرتي على تحمل التوتر العصبي)	8
3	2	1	0	كنت خائفاً من مواقف قد أفقد فيها السيطرة على أعصابي واسبب إحراجاً لِنفسي	9
3	2	1	0	شعرت بأن ليس لدي أي شيء أتطلع إليه	10
3	2	1	0	شعرت بأنني مضطرب ومنزعج	11
3	2		0	أجد صعوبة في الاسترخاء	12
3	2		0	شعرت بالحزن والغم	13
3	2	1	0	كنت لا أستطيع تحمل أي شيء يحول بيني وبين ما أرغب في القيام به	14
3	2	1	0	شعرت بأنني على وشك الوقوع في حالة من الرعب المفاجئ بدون سبب	15
3	2	1	0	فقدت الشعور بالحماس لأي شيء	16
3	2	1	0	شعرت بأن قيمتي قليلة كشخص	17
3	2	1	0	شعرت بأنني أميل إلى الغيظ بسرعة	18
3	2	1	0	شعرت بضربات قلبي بدون مجهود جسدي (زيادة في معدل الدقات، أو غياب دقة قلب، مثالا)	18
3	2	1	0	شعرت بالخوف بدون أي سبب وجيه	20
3	2	1	0	شعرت بأن الحياة ليس لها معنى	21

Appendix F

مقياس توجهات التعامل مع المشكلات المعاشية

Brief COPE

تعليمات الإجراء

هناك العديد من الطرق والأساليب للتعامل مع مواقف الحياة الضاغطة.

والأسئلة التالية تستهدف معرفة الطريقة التي يتعامل بها الناس عادة مع هذه الأحداث . والمطلوب هو معرفة الطريقة التي تشعر أو تتصرف بها عادة حينما يواجهك موقف صعب, او مشكلة, او حدث ضاغط. لذا نأمل منك الإجابة عن هذه الأسئلة وفقاً للطريقة التي تتصرف بها عادة في مواجهة ما يصادفك من ضغوط ومشكلات, وليس وفقاً لما ينبغي ان يكون او وفقاً لما يفعله الناس الاخرون علماً بأنه لا توجد اجابة صحيحة واخرى خاطئة, فلكل شخص طريقته الخاصة في الاستجابة لمواقف الحياة المختلفة .

تأكد بأن هذه المعلومات سرية ولن تستخدم في غير الغرض العلمي.
أرجو الإجابة باختيار بديل واحد من بين البدائل المتاحة أمام كل عبارة وذلك بوضع علامة تحت المكان المناسب استعمل التقديرات التالية :

1- لا افعل ذلك مطلقاً .

2- افعل ذلك نادراً .

3- افعل ذلك احياناً .

4- افعل ذلك كثيراً .

شكراً على تعاونك

العبارة	لا افعل ذلك مطلقاً	افعل ذلك نادراً	افعل ذلك احياناً	افعل ذلك كثيراً
1 أحاول الانشغال عن الأمر بالعمل أو أي نشاط آخر				
2 أركز جهودي من أجل اتخاذ إجراء ما تجاه الموقف الذي أتعرض				
3 أقول لِنفسي بأن ما حدث غير حقيقي				
4 أوجل بعض الأعمال لكي أركز جهودي على معالجة المشكلة				
5 أسعى للحصول على دعم نفسي من الآخرين				
6 أتخلى عن محاولة التعامل مع الأمر				

				أحاول القيام بإجراء لتحسين الموقف	7
				أرفض تصديق ما حدث	8
				أقول لنفسي أشياء تجعلني أتخلص من المشاعر المزعجة	9
				أحاول الحصول على مساعدة من الناس الآخرين	10
				أركز جهودي على التعامل مع المشكلة حتى لو أدى ذلك إلى إهمال بعض الأمور الأخرى	11
				أحاول رؤية الأمور من منظور مختلف لكي تبدو أكثر إيجابية	12
				أنتقد نفسي	13
				أضع خطة لما ينبغي عمله	14
				أسعى للحصول على فهم وطمأنة شخص آخر	15
				أتخلى عن التعامل مع الموقف	16
				أبحث عن جانب إيجابي فيما حدث	17
				أضحك من الموقف	18
				أقلل التفكير في الأمر بالانشغال بأشياء أخرى مثل: مشاهدة التلفزيون، القراءة، النوم، أو التسوق	19
				أحاول تقبل الأمر	20
				أعبر عن مشاعري السلبية	21
				أحاول أن أجد الراحة والعزاء في الدين	22
				أحاول الحصول على نصيحة الآخرين فيما ينبغي علي عمله	23
				أحاول التعايش مع الأمر	24
				أفكر ملياً فيما ينبغي اتخاذه من خطوات	25
				ألوم نفسي على ما حدث	26
				ألجأ إلى الصلاة والدعاء	27
				أحاول أن أجعل الأمر يبدو مضحكا	28



جامعة النجاح الوطنية
كلية الدراسات العليا

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الجامعية لطلاب السنة الثانية في جامعة النجاح الوطنية

إعداد
نغم احمد محمد اغبارية

إشراف
د. عدنان سرحان

استكمالاً لمتطلبات الحصول على درجة الماجستير في علم النفس الاكلينيكي من كلية الدراسات العليا بجامعة
النجاح الوطنية نابلس - فلسطين.

2025

الأثر النفسي للمدارس المختلطة الثانوية مقابل غير المختلطة في التكيف مع الحياة الجامعية لطلاب
السنة الثانية في جامعة النجاح الوطنية

إعداد

نعم احمد محمد اغبارية

إشراف

د. عدنان سرحان

الملخص

سنوات عديدة، تساءل الناس عما إذا كانت المدارس المشتركة أكثر فعالية من المدارس غير المشتركة هذا الموضوع بالغ الأهمية لأنه يؤثر بشكل مباشر على مستقبل الاطفال ويتقاطع مع مجالات حاسمة مثل النجاح الاكاديمي واختيارات العمل والعلاقات الاجتماعية.

تهدف هذه الدراسة إلى التحقيق في الأثير النفسي للمدارس الثانوية المشتركة مقابل المدارس الثانوية غير المشتركة على التكيف مع الحياه الجامعية لدى طلاب السنه الثانية في جامعة النجاح الوطنية.

تم استخدام نهج كمي لتحقيق هدف الدراسة. تم اختيار العينة باستخدام اسلوب أخذ العينات المريح في كلية الطب والعلوم الصحية، $n= 249$ طالبًا، للحصول على 147 طالبًا في المدارس الثانوية المختلطة مقابل 147 طالبًا في المدارس الثانوية غير المختلطة.

تكشف نتائج هذه الدراسة عن اربع نتائج رئيسية. أولاً، افاد الطلاب المختلطون باستمرار بانخفاض مستويات التوتر والقلق والاكتئاب، بينما أظهر الطلاب غير المختلطين معدلات أعلى بشكل ملحوظ من الأعراض المتوسطة الى شديدة. ثانيًا، اظهر الطلاب المختلطون قدرات تكيف افضل بكثير، كما يتضح من متوسطات الرتب الأعلى وقيمة مان- ويتي يو ذات الدلالة الاحصائية. ثالثًا، وجد أن استراتيجيات التكييف مرتبطة ارتباطًا وثيقًا بنتائج الصحة النفسية في كلا النوعين من المدارس، مع وجود ارتباطات أكثر وضوحًا في المدارس غير المختلطة، مما يشير الى ان التكييف غير الفعال قد يؤدي الى تفاقم الضائقة النفسية في هذه

البيئات. أخيرًا , أظهرت المتغيرات الديموغرافية مثل العمر والدخل ارتباطات كبيرة بنتائج الصحة النفسية ومستويات التكيف في المدارس المختلطة, في حين لم يسفر الجنس ومكتم السكن عن فروق ملحوظة.

تلخص هذه الدراسة الى ان المدارس المختلطة توفر بيئة اكثر دعما للصحة النفسية للطلاب مقارنة بالمدارس غير المختلطة. تشير النتائج الى ان الطلاب في المدارس المختلطة يعانون من مستويات اقل من التوتر والقلق والاكتئاب، بينما يبلغ الطلاب في المدارس غير المختلطة عن معدلات أعلى من الضائقة النفسية. بالإضافة الى ذلك, يظهر الطلاب في المدارس المختلطة قدرات تكيف افضل بكثير , مما يبرز الدور الوقائي للبيئات المختلطة في تسهيل الانتقال الى الجامعة. ولوحظت ارتباطات قوية بين استراتيجيات التكيف ونتائج الصحة النفسية، لا سيما في المدارس غير المختلطة، حيث يفاقم عدم فعالية التكيف الضائقة. وتشدد الدراسة على ضرورة تطبيق تدخلات مستهدفة في البيئات غير المختلطة لتعزيز مهارات التكيف وتقليل الضغط النفسي.

الكلمات المفتاحية: التأثير النفسي، المدارس المشتركة، المدارس غير المشتركة، التكيف.