

Understanding Homesickness: Its Relationship With Psychopathology And Psychological Wellbeing Among International Students

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ABSTRACT

Background: As the population of international students continues to expand globally, researchers are increasingly seeking ways to enrich the study abroad experience.

Aim: With this goal in mind, the present study aimed to explore the effects of homesickness on psychological well-being among international students, as well as its potential association with the emergence of psychopathological symptoms, including depression, anxiety, and stress.

Methods: A sample of 200 international students (100 males, 100 females) aged between 18 to 30 years ($M = 22.92$, $SD = 2.35$), attending various universities and drawn from diverse countries was recruited for participation. They completed measures including the Homesickness and Contentment Scale, Ryff scale of Psychological Wellbeing, and the Depression Anxiety Stress Scale - Short Form (DASS-21).

Results: Correlation analyses revealed a significant positive association between homesickness and psychopathologies like depression ($r = 0.508$, $p < 0.01$), anxiety ($r = 0.553$, $p < 0.01$) and stress ($r = 0.408$, $p < 0.01$), meaning that higher levels of homesickness were linked to more severe symptoms of depression, anxiety and stress respectively. Also, a significant negative association was found between homesickness and psychological wellbeing ($r = -0.607$, $p < 0.01$), indicating that as feelings of homesickness intensified, levels of psychological well-being declined. Furthermore, linear regression analyses demonstrated that homesickness significantly predicted psychopathologies such as Depression [$R^2 = .258$, $F(1, 198) = 68.75$, $p = .000$, $\beta = .508$]; Anxiety [$R^2 = .306$, $F(1, 198) = 87.24$, $p = .000$, $\beta = .553$]; and Stress [$R^2 = .167$, $F(1, 198) = 39.61$, $p = .000$, $\beta = .408$]. In addition to that, homesickness was found to be a significant predictor of psychological wellbeing [$R^2 = .368$, $F(1, 198) = 115.27$, $p = .000$, $\beta = -.607$] among international students.

Conclusion: The findings emphasized the importance of addressing homesickness as a potential risk factor for the development of psychopathology and a decline in psychological well-being among international university students. As such, the former may be useful for universities and authorities in developing interventions to promote psychological resilience and wellbeing, and to help prepare students socially and psychologically in the host culture for their future endeavors.

Keywords: homesickness, psychological wellbeing, psychopathology, depression, anxiety and stress

INTRODUCTION

International students represent a varied and distinctive demographic within university populations worldwide. The former has been extensively examined in the literature on cultural contact (Ward, Bochner, & Furnham, 2001), and this trend is expected to persist as the number of students pursuing education abroad continues to rise. UNESCO (2014) anticipates that by 2025, there will be fifteen million international students studying abroad, a significant increase over the previous three decades (Altbach and Knight, 2007).

Undoubtedly, students at this period of life frequently face major obstacles that result in a variety of psychological, physical, social, and emotional problems and those who are unable to handle the demands of the ever-changing environment are more susceptible to problems with mental health. Also, the necessity for managing psychological concerns among the student population is highlighted by the frequency of mental health issues, particularly among overseas students. Research by Gallagher et al. (2004) and Hunt and Eisenberg (2010) have brought attention to the increased awareness of mental health issues among college-age people, with a growing belief that serious psychological issues have become more prevalent recently (Kitzrow, 2003; Gallagher, 2006; Blanco et al., 2008). Particularly foreign students deal with particular stressors such as homesickness, social isolation, academic pressures, and cultural adjustment, which could all be detrimental to their mental health. Studies have consistently shown that among this population, preserving a positive psychological wellbeing serves as a protective barrier against stress, anxiety, and depression. Keyes

(2007) and Huppert and So (2013) highlighted how important psychological health is for building resilience and flexible coping mechanisms. As they negotiate the unique difficulties of their academic path, these attributes are crucial for international students.

Furthermore, a major worry for international students relocating to new educational settings is homesickness, which is perceived as a typical response to the process of adjusting to new surroundings. This experience is accompanied by a variety of emotional reactions, such as longing, nostalgia, and sadness due to being cut off from social networks, cultural norms, and familiar surroundings. As they navigate the difficulties of acclimating to a foreign academic and social environment, homesickness can have a substantial negative influence on the psychological well-being and general adjustment of international students. Numerous psychopathological effects, including elevated stress, anxiety, and depression, may also ensue from it (Thurber and Walton, 2012; Zhang et al., 2015). Acting as a potent stressor, it triggers maladaptive coping mechanisms and renders international students more vulnerable to mental health issues. This alienation and detachment exacerbate anxiety and despair, resulting in ongoing psychological distress and functional impairment.

However, as international students start their journey abroad, their psychological well-being becomes increasingly important. This investigation explores the changes in their mental health that arise during the relocation process. From cultural adaptation to ongoing challenges, understanding their mental state is essential for academic and personal achievement. Importantly, evaluating their well-being encompasses aspect such as homesickness. Taking these variables into account makes it possible to design treatments and support networks for mental health that are specifically suited to the requirements of international students.

Homesickness

While homesickness is not formally recognized as a diagnostic word in the DSM 5, it is most usually classified as an adjustment disorder accompanied by mixed anxiety and depression, according to the American Psychiatric Association (2013). Therefore, it is reasonable to say that adjustment disorder and homesickness are strongly related.

According to Fisher and Hood (1987) (p. 426), homesickness is "a complex cognitive motivational-emotional state concerned with grieving for, yearning for, and being occupied with thoughts of home". However, homesickness is described as "the distress or impairment caused by an actual or anticipated separation from home" (p. 415) by Thurber and Walton (2012). There is a spectrum of symptoms accompanied by this discomfort, from mild to severe homesickness that severely impairs day-to-day functioning (Fisher, 2017). Stroebe et al. (2016) referred to homesickness as a "mini-grief," emphasizing its connection to yearning for one's native place and difficulties acclimating to unfamiliar settings.

Homesickness consistently ranks as the top concern among international students, despite variations in prevalence rates (Fisher, 2017). Research indicates that feeling homesick following a move is common, irrespective of an individual's age, gender, or cultural upbringing (Van Tilburg, 1996; Fisher, 2017). The weekly experiences of 174 undergraduate students throughout the first ten weeks of the semester were tracked in a study by English et al. (2016). Understanding how homesickness develops during a student's first semester away from home and how it impacts their overall college adjustment was the aim of the study. Their results showed that pupils who expressed feeling homesick adjusted less well overall than those who did not. Moreover, homesick students are "three times more likely to drop out of school than those who did not" (Thurber and Walton, 2012, p. 416). Researchers also discovered that a higher probability of feeling homesick was predicted by a poorer felt sense of belonging at college (Sun, et al., 2016). According to Sun et al. (2016), "students are more likely to feel accepted once they feel more integrated into the university context, which will reduce the degree of homesick distress" (p. 955).

In a previous study, 31% of first-year residential students at a US institution reported feeling homesick, according to Fisher and Hood (1987). Nonetheless, research (English et al., 2016) on first-year college students revealed a higher rate whereby 94% of them reported feeling homesick in their first semester when they were away from home. Nonetheless, longitudinal methods can offer a more comprehensive comprehension of how homesickness might evolve as people adjust to their new surroundings. Similarly, Fisher and Hood (1987) discovered that homesickness might manifest themselves later in college and that it could also intensify with time. Bell and Bromnick (1998) observed a decrease in the level of homesickness from the first week of the semester to the sixth week. Brewin et al. (1989) and Urani et al. (2003) likewise reported a decline in homesickness among first-year students over time. On the other hand, Mekonen and Adarkwah (2023) discovered that although psychological factors improved with time, the degree of homesickness stayed the same.

Psychological Wellbeing

Well-being and positive psychology have grown to be an important area of focus for international students as they navigate the challenges of studying abroad (Chen et al., 2022). Ryff and Singer (2008) postulated that the lack of well-being makes people more vulnerable to potential future hardships, and the way to recover is to produce more good things in addition to lessening the negative ones. Dodge et al. (2012) proposed a definition in which stable wellbeing is classified as the

equilibrium between resources and challenges, where social, psychological and physical resources and challenges are concerned. Said otherwise, if one of the resources or challenges goes down, so will wellbeing. Additionally, Diener, Emmons, Larsen and Griffin (1985) claimed that well-being is assessed by measuring psychological well-being, positive thinking, positive feelings and the equilibrium between positive and negative emotions. Seligman (2011), however, claimed that to measure well-being, we have to measure flourishing, not happiness. Positive feeling, engagement, relationships, meaning, and accomplishment are the constructs of well-being according to his definition (PERMA). The primary focus of preliminary research was on the relationship between the Greek word "eudemonia," which is translated as "happiness," and experiences of good and negative affect, subjective well-being, and life satisfaction (Ryff, 1989b).

Ryff's (1989) six-factor model is one such model that uses a eudaimonic approach to psychological health. Psychological wellbeing, according to Ryff and Keyes (1995), is a process of self-realization made up of six dimensions: self-acceptance, positive relationships with others, environmental mastery, autonomy, and the purpose of life. Every dimension poses a unique obstacle to having a healthy psychological outlook (Ryan, 2014). According to this model, individuals who score high on these dimensions experience greater overall wellbeing (Ruggeri et al., 2020).

Additionally, beyond the usual academic, emotional, and social demands that domestic students encounter, international students surely face unique challenges. These challenges often lead to self-doubt and require young adults to reframe their social and academic identities in a peculiar way (Pittman and Richmond, 2008). First, a key component of their experiences appears to be acculturative stress, which is the strain of adjusting to a new social or cultural setting (Guo, Li, & Ito, 2014; Kerstin et al., 2022). Empirical studies reveal that elevated levels of acculturative stress are linked to heightened feelings of isolation and reduced mental health among Chinese international students. Enrolling for a course abroad is one of the crucial college years that can cause anxiety issues and other adjustment issues (Lowe and Cook, 2003; Aderi et al., 2013). The possible reasons may be due to difficulties forming friends or interacting with people due to various factors, including cultural adjustment and differences (Berry, 2005), social isolation (Crossman and Clarke, 2010), language barriers (Dewaele, 2018), and being separated from their parents and other relatives (Thurber & Walton, 2012). These issues may worsen if they reside in institutional housing, which is substantially different from their home environment (Larivière-Bastien et al., 2022). As such, homesickness can take an emotional toll, as students miss the familiarity of home, loved ones, and the comforts of their native culture. Furthermore, academic stress is also prevalent among international students due to the demands of foreign education systems, language barriers, and elevated expectations, as elucidated by Kuo and Roysircar's academic stress model (2004). It is characterized by heavy workloads, exam anxiety, and other stressors (Pedrelli et al., 2015). Academic challenges, including differences in education systems and grading, can also make transitioning to a new setting more stressful (Misra and Castillo, 2004). Moreover, Reid and Dixon (2012) claimed that foreign students who do not speak English well suffer in class during lectures, presentations, and seminar-based discussions as a result of language barriers.

Stress is also significantly influenced by financial strain, which is demonstrated by high living and tuition costs. Chen and Tung (2014) found a robust link between psychological distress and financial stress in international students. While some international students arrive well-funded, others struggle to pay for meals and other essentials, and some may even find it difficult to travel home for the holidays (Butcher & McGrath, 2004). Immigration laws frequently limit the work options available to non-residents, which exacerbates financial difficulties. Due to visa constraints, which are frequently rare, students are usually only permitted to work on campus positions even when they are permitted to work (Lee, Koeske, & Sales, 2004). As such, international students' mental health may be severely impacted by these financial difficulties.

Furthermore, the Social Identity Model of Stress by Smart and Smart (1998) emphasizes social isolation and loneliness, which highlight the significance of supportive social networks in reducing the psychological effects of stressors. Amidst language difficulties and new social dynamics, it can be challenging to establish social connections, leading to social isolation, which is characterized by feelings of loneliness, anxiety, and sadness. According to Meyer (2003)'s Minority Stress Model, discrimination and prejudice based on race or nationality pose additional risks to international students' mental health. International students may experience difficulties because of discrimination and prejudice because of their ethnicity, nationality, or cultural background leading to feelings of stress, anxiety and depression. Aside from this, the Transition and Adjustment Model put forth by Ward and Kennedy (1993) examines how uncertainty about employment possibilities, visa status, and post-graduation options adds to elevated stress levels.

Overall, the individual faces a variety of demands, such as those resulting from language barriers, learning challenges, money issues, a lack of social support system, loneliness, and societal expectations (Butcher & McGrath, 2004; Fritz, Chin, & DeMarinis, 2008; Poyrazli & Grahame, 2007). These challenges may negatively impact a student's mental health and impede their ability to learn.

However, a few protective factors—such as resilience, age and gender (Brewin, Furnham, & Howes, 1989), personality traits (McCrae and Costa, 1999), emotional intelligence (Mayer and Salovey, 1997), and the availability of resources—help students overcome these obstacles and have fulfilling and life-changing experiences abroad. Likewise, according to Mohamud and Madderla (2024), international students exhibiting high levels of resilience and low levels of neuroticism are less prone to experiencing homesickness.

Psychopathology

The field of abnormal psychology is now commonly referred to as psychopathology, a shift that reflects a more neutral and less stigmatizing approach. This change in terminology acknowledges the significance of lessening the stigma attached to the term "abnormal" and advances a more inclusive conception of mental health. By using the term "psychopathology," the focus is shifted to the scientific investigation of mental illnesses without inadvertently stigmatizing people or creating social stigma. According to the American Psychological Association (2013), psychopathology is the scientific study of mental illnesses that includes examining the characteristics, origins, and symptoms of aberrant psychological functioning. It encompasses a thorough investigation, categorization, and comprehension of diverse mental health disorders, aiding in the establishment of diagnostic standards and therapeutic methodologies.

In recent years, there has been growing recognition of the global concern regarding the prevalence of anxiety and depression among college students (Sharp & Theiler, 2018). Auerbach et al. (2018) conducted the "WHO World Mental Health Surveys International College Student Project," encompassing eight nations and nineteen colleges, aiming to assess the frequency of common mental disorders and their sociodemographic associations among first-year college students. Their findings revealed that approximately one-third of these students experienced a mental illness, with major depressive disorder (18.4%) and generalized anxiety disorder (16.7%) being the most prevalent. Koppenborg et al. (2022) delved into "Academic stress, mindfulness-related skills, and mental health" among 190 foreign university students, identifying a significant correlation between anxiety and depressive symptoms and higher levels of perceived academic stress. They also found associations between these symptoms and lower levels of psychological flexibility, self-compassion, and mindfulness. Similarly, Shadowen et al. (2022) explored depressive symptom prevalence and correlates among international students, uncovering various factors contributing to higher levels of depressive symptoms, including demographic variables, academic stress, social isolation, language barriers, and experiences of discrimination or cultural adjustment challenges. Their study highlighted alarmingly high rates of depressive symptoms among international students, with a substantial portion scoring above the clinical threshold for depression and indicating moderate to severe anxiety.

Despite existing research, there is a notable gap in understanding the interplay between psychological wellbeing and homesickness in contributing to psychopathology, especially among international student populations. Therefore, this study aims to explore these relationships and their implications for intervention and support strategies, thereby addressing the pressing mental health challenges faced by international students. Specifically, the aims of the current research were twofold:

1. To explore the impact of homesickness on the psychological wellbeing of foreign students.
2. To investigate the effect of homesickness on the development of psychopathology (depression, anxiety and stress) in international students.

Hypotheses

H1: Homesickness will be negatively associated with psychological wellbeing.

H2: Homesickness will be positively associated with levels of depression, anxiety and stress.

H3: Homesickness will significantly predict psychological wellbeing.

H4: Homesickness will significantly predict psychopathological symptoms including depression, anxiety and stress.

METHODOLOGY

Research Design

The current study used a correlational research design, whereby online survey research was employed. This method involved the distribution of surveys to participants through online platforms, allowing for the collection of data in a systematic and standardized manner.

Sample

The study included a sample of 200 international students attending various universities, drawn from diverse countries, and selected through purposive sampling techniques. Among them, there were 100 males (50%) and 100 females (50%), with 114 identified as undergraduates (57%) and 86 as postgraduates (43%). The age range of the students was from 18 to 30 years old, with an average age of 22.92 years (SD= 2.35). They hailed from diverse countries such as Mauritius, India, USA, Africa, Singapore, and Malaysia, with the majority having studied away from home for two years. Additionally, 31 respondents were in their first year of study (15.5%), 94 were in their second year (47%), 47 were in their third year (23.5%), and 28 were in their fourth year (14%).

Inclusion Criteria: This comprised proficiency in English, being at least 18 years old, and currently enrolled in a university in a foreign country different from the country of origin.

Variables: In the present study, homesickness was the independent variable and psychological wellbeing and psychopathology were entered as the dependent variables.

Measures

A self-administered questionnaire was designed for collecting data which consisted of Section A, B, C and D. The levels of homesickness, psychological well-being, and psychopathology among foreign students were measured using the Homesickness and Contentment Scale (1999), Ryff scale of Psychological Wellbeing (1989) and the Depression Anxiety Stress Scales - Short Form (DASS-21) (1997) respectively.

Demographic Variables

This section consisted of questions about the demographics and academic backgrounds of respondents. It was made up of five questions related to age, gender, country of origin, year and level of study and years studying away from home.

Homesickness and Contentment Scale

From a previous 30-item homesickness, loneliness, and depression (HLD) measure, Shin and Abel's (1999) 20-item version was developed. The HC scale is a tool for measuring contentment and homesickness that consists of two subscales, each with ten items. In order to rate their level of "would like to go back to their own country," "write emails to family and friends back home," "feel homesick," and "miss family and friends back home," respondents completed a 5-point Likert-type scale ranging from "very often" to "never." Survey participants expressed their level of loneliness, depression, or feeling that no one understands them on a 5-point Likert scale that ranged from "very often" to "never" for the contentment subscale. Additionally, all 20 components were used in the computation of the global HC scale. A higher score indicates a better level of adjustment for the participant. The reliabilities for global scale, the homesickness subscale, and the contentment subscale were 0.79, 0.86, and 0.93 respectively.

Ryff Scale of Psychological Wellbeing

The six theoretically positive characteristics of the eudaimonic approach to psychological wellbeing—Autonomy, Environmental mastery, Purpose in life, Positive relations with others, Personal growth, and Self-acceptance—were measured using a modified version of Ryff's (1989) 18-item questionnaire. Every facet of psychological wellbeing is represented by three elements on the scale. "I am good at managing the responsibilities of daily life" (Environmental Mastery) is an example of an item. In addition, answers were provided on a 5-point Likert scale, with 1 denoting "strongly agree" and 5 denoting "strongly disagree." Each item was rated in relation to the participants' mental state during their stay abroad. The scale consists of 10 reverse-scored questions, which were flipped, resulting in higher scores indicating greater well-being. For example, "I like most parts of my personality". A total score was computed by summing all items. Cronbach alpha value for the scale was 0.71.

Depression Anxiety Stress Scales - Short Form

The DASS-21 scale, created by Lovibond, S.H. and Lovibond, P.F. in 1997, consists of three self-reported scales aimed at measuring depression, anxiety, and stress, each comprising seven items. Responses for the seven items on the scales are rated on a Likert scale ranging from 0 to 3(0: "Never," 1: "Sometimes," 2: "Often" and 3: "Almost always). The scores of the related items are summed up to determine the depression, anxiety, and stress scores. The total score for the DASS-21 is determined by multiplying the scores for each subscale by two, as it is a shorter version of the original 42-item DASS. Following that, the evaluations are categorized as follows: "normal, mild, moderate, severe, or extremely severe" according to the scores on each of the three subscales. The Cronbach alpha coefficient was found to be 0.82 for depression, 0.83 for anxiety and 0.80 for stress.

Procedures

An online survey, containing all the above measures, was created on Google Forms and disseminated via social media to reach the targeted population of international students. This is a suitable method for data collection since it is cheap, confidential and yields responses quickly. Self-administered questionnaires were used for data collection, and 200 responses were obtained after data cleaning. Furthermore, the questionnaire omitted any identifying information, such as the participants' name, contact details and email address, in order to respect their privacy. Along with the questionnaire, participants were given a consent form that explained the research's goal. They were also guaranteed that their responses would remain confidential, anonymous and solely be utilized for research and academic purposes. Additionally, they were assured of no significant risk associated with the research, except that they might experience psychological inconveniences caused by memories their home and families. Also, if participants felt especially uncomfortable talking about their well-being, they were told of their right to withdraw from the study. After providing their informed consent, participants were directed to the questionnaire, which took around 15 minutes to complete. However, if participants

wanted any clarification regarding the study, the researcher’s contact details were included in the survey form itself. Participants were fully debriefed after completing the survey. Lastly, data collected was subjected to analysis.

Data Analysis

The IBM SPSS version 26 was used for analyzing the data obtained whereby descriptive statistics, including measures such as means, standard deviations, frequencies, and percentages, were computed to succinctly summarize the demographic characteristics of the participants. Inferential statistics, such as Pearson’s correlation and linear regression were employed for further analysis. Correlation analyses were utilized to investigate the relationship between homesickness, psychological wellbeing, and psychopathologies such as depression, anxiety, and stress. Additionally, linear regression analysis was conducted to examine the potential predictor of homesickness on psychological wellbeing and on the development of various psychopathologies such as depression, anxiety and stress.

RESULTS

Descriptive Statistics

Demographic variables were analysed using descriptive statistics. The table below show the frequency and percentage of both the number of males and females in the sample, their age range, level and year of study.

Table 1: Characteristics of demographic variables (N=200)

Variable		n	Percentage
Gender	Male	100	50
	Female	100	50
Age (in years) (Mean=22.92; SD= 2.348)	18-21	50	25
	22-25	132	66
	26-29	12	6
	30 and above	6	3
Level of study	Undergraduate	114	57
	Postgraduate	86	43
Year of Study	Year 1	31	15.5
	Year 2	94	47
	Year 3	47	23.5
	Year 4	28	14

Note: SD= Standard Deviation

As per table 1 above, the sample consisted of 100 males and 100 females. The mean age was 22.92 years (SD= 2.348). Participants’ age ranged from 18 to 30 years. Also, the sample consisted of more undergraduates (n=114; 57%) than postgraduates (n=86; 43%) and the majority of the participants were in their second year (n=94; 47%), with 31 participants in year 1 (15.5%), 47 in year 3 (23.5%) and 28 in the fourth year of study (14%). Furthermore, the subsequent figures visually illustrate the demographic variables.

Figure 1: Number of participants with their corresponding years away from home

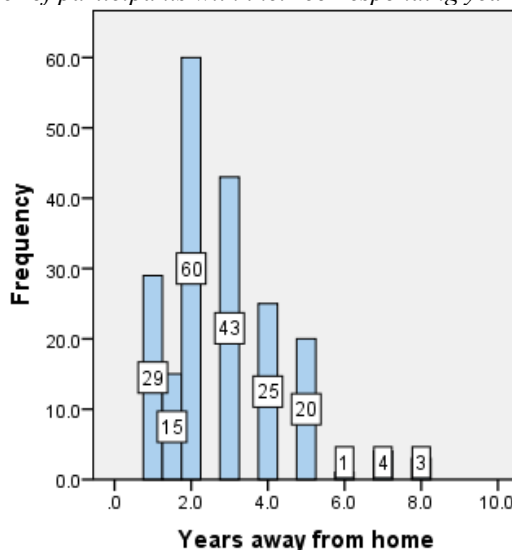


Figure 2: Number of participants in the corresponding years of study

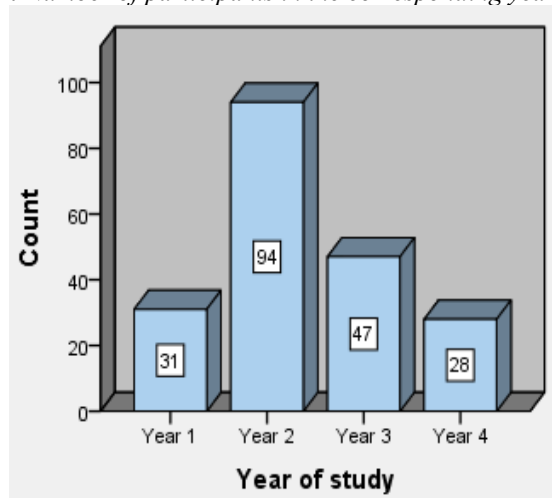


Figure 3: Frequency of undergraduates and postgraduates

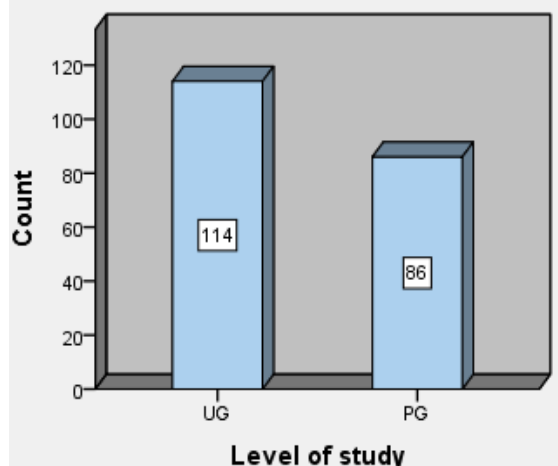


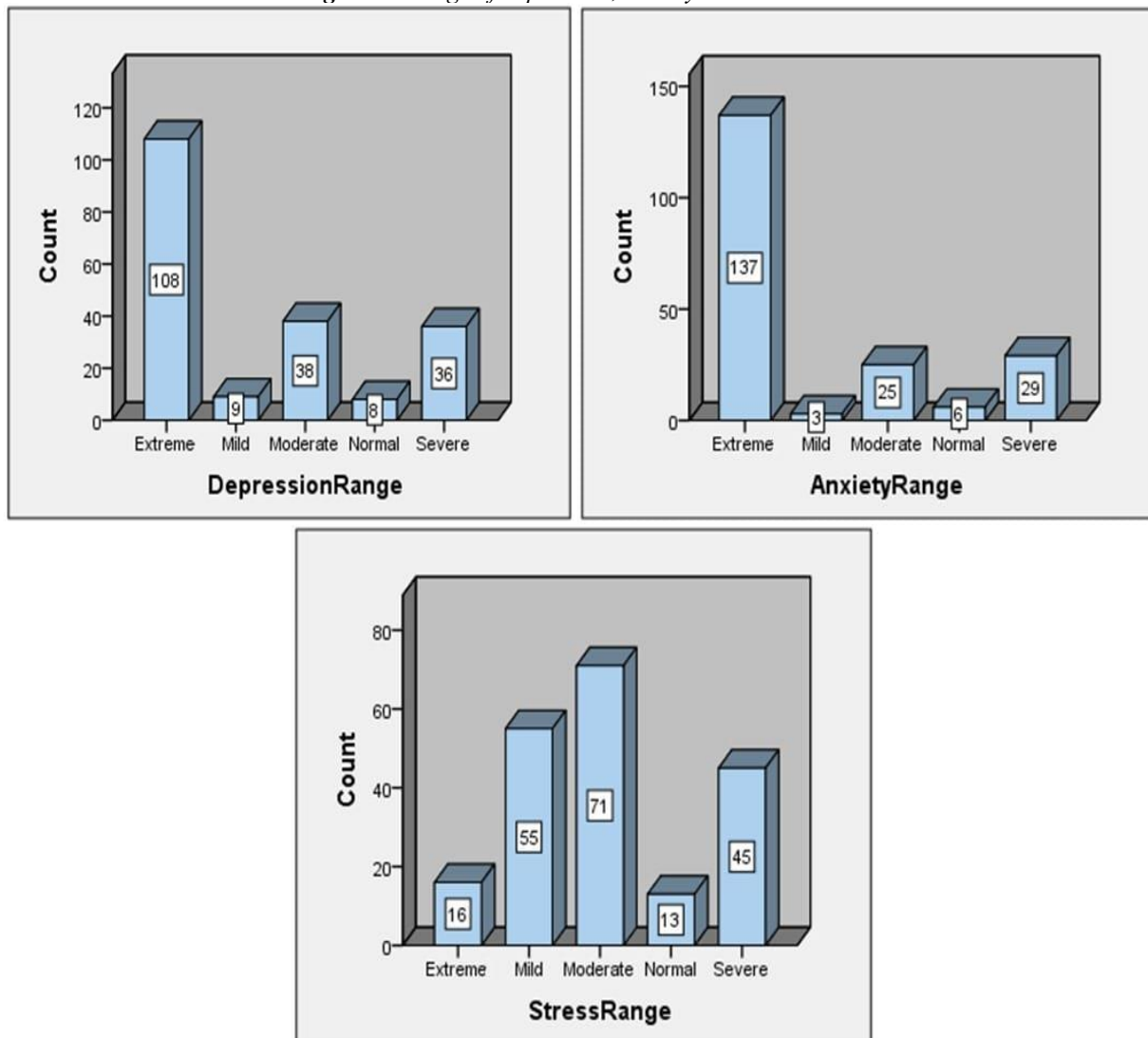
Table 2: Descriptive Statistics for the study variables (N=200)

	HS	PWB	Psychopathology		
			Depression	Anxiety	Stress
Mean	61.73	55.27	27.06	23.89	22.88
SD	19.697	15.076	9.985	8.493	7.908
Minimum	27	28	4	4	6
Maximum	93	88	88	38	40

Note: HS=Homesickness; PWB= Psychological wellbeing; SD= Standard deviation

From Table 2, the average score for homesickness was 61.73 ($SD= 19.70$), and it ranged from 27 to 93. Additionally, participants had a mean psychological wellbeing score of 55.27 with a standard deviation of 15.08. The lowest score obtained on the psychological wellbeing scale was 28, indicating low psychological functioning and the highest score was 88. For psychopathology, the mean for depression was 27.06 ($SD= 9.985$) and the highest and lowest score was 88 and 4 respectively. Moreover, participants had a mean anxiety score of 23.89 ($SD= 8.493$) with the highest score being 38 and lowest score being 4. Lastly, stress had an average of 22.88 ($SD= 7.908$) and the highest and lowest score was 40 and 6 respectively.

Figure 4: Range of depression, anxiety and stress levels



The three figures above are pictorial representation of the number of participants that scored normal, mild, moderate, severe and extreme on the psychopathology constructs such as depression, anxiety and stress.

Inferential Statistics

Correlation Analyses

Results of the correlation analyses are tabulated below.

Table 3: Correlation Matrix of Study Variables

Variables	1.	2.	3.	4.	5.
1. Homesickness	1				
2. PWB	-.607**	1			
3. Depression	.508**	-.436**	1		
4. Anxiety	.553**	-.514**	.688**	1	
5. Stress	.408**	-.417**	.647**	.636**	1

N = 200, ***p* < .01; PWB = Psychological wellbeing

Results of the Pearson correlation test showed a significant positive correlation between homesickness and Depression, *r* = .508, *p* < .01, indicating that students experiencing homesickness tended to exhibit symptoms of depression. Similarly,

results indicated a significant positive relationship between homesickness and anxiety, $r = .553, p < .01$, suggesting that homesickness was linked to increased anxiety symptoms among students. Furthermore, the analysis unveiled a significant positive correlation between homesickness and stress, with a coefficient of $r = .408, p < .01$, indicating that students experiencing homesickness tended to experience higher levels of stress. Also, a notable inverse relationship was observed between homesickness and psychological wellbeing, $r = -.607, p < .01$. This indicates that as levels of homesickness increased, psychological wellbeing decreased.

Since correlations only indicate the significance, direction and size of relationships between variables, regression analyses were performed to investigate the causal relationship among variables.

Regression Analyses

The predictive value of homesickness on psychopathology (depression, anxiety, stress) and psychological wellbeing was tested independently using simple linear regression analysis and tabulated below.

Table 4: Linear Regression Predicting Psychopathology and Psychological Wellbeing

	Depression	Anxiety	Stress	PWB
Predictor	β	β	β	β
Homesickness	.508**	.553**	.408**	-.607**
F	68.75	87.24	39.61	115.27
R ²	.258	.306	.167	.368

Note: ** $p < .01$; PWB= Psychological wellbeing

Firstly, depression was inputted as the dependent variable (outcome) and participants' self-reported homesickness was entered as the independent variable (predictor). Results showed that homesickness significantly predicted depression, $R^2 = .258, F(1, 198) = 68.75, p = .000, \beta = .508$. The R square value of .258 demonstrated that 25.8% of change in depression can be explained by homesickness.

Secondly, Anxiety was inputted as the dependent variable and participants' self-reported homesickness was entered as the independent variable. Results showed that homesickness significantly predicted anxiety, $R^2 = .306, F(1, 198) = 87.24, p = .000, \beta = .553$. The R square value of .306 demonstrated that 30.6% of change in anxiety can be explained by homesickness.

Thirdly, Stress was inputted as the dependent variable and participants' self-reported homesickness was entered as the independent variable. Results showed that homesickness significantly predicted stress levels, $R^2 = .167, F(1, 198) = 39.61, p = .000, \beta = .408$. The R square value of .167 demonstrated that 16.7% of change in stress levels can be explained by homesickness.

Linear regression analyses also found that homesickness significantly predicted psychological wellbeing, $R^2 = .368, F(1, 198) = 115.27, p = .000, \beta = -.607$. The R square value of .368 demonstrated that 36.8% of change in psychological wellbeing can be explained by homesickness as demonstrated in table 6 above. This finding suggests that homesickness significantly influences the level of psychological well-being, accounting for a considerable portion of the total variability observed in the psychological well-being of international students.

DISCUSSION

The primary aim of the current study was twofold: firstly, to investigate the impact of homesickness on different dimensions of psychopathology, encompassing depression, anxiety, and stress, within the international student population. Secondly, it aims to assess the effects of homesickness on levels of psychological well-being.

Discussion based on Descriptive Statistics

The data set consisted of a sample of 200 international students from various universities, representing diverse countries, who were selected using purposive sampling techniques. To enhance understanding of the latter, an overview of the demographic details of the research participants are provided in Table 1 in the results section.

The sample comprised 100 males (50%) and 100 females (50%), with 114 identified as undergraduates (57%) and 86 as postgraduates (43%). This implied that the sample consisted of more undergraduates than postgraduates. The age range of the students was 18 to 30 years, with an average age of 22.92 years ($SD = 2.35$). Additionally, 50 students (25%) were aged 18 to 21 years, 132 (66%) were aged 22 to 25 years, 12 (6%) were aged 26 to 29 years, and only 6 students (3%) were above 30 years old. Participants originated from countries such as Mauritius, India, USA, Africa, Singapore, and Malaysia, with the majority having studied away from home for two years. Additionally, 31 respondents were in their first year of study (15.5%), 94 were in their second year (47%), 47 were in their third year (23.5%), and 28 were in their

fourth year (14%). Said otherwise, the majority of the participants were in their second year. Also, in order to participate in the current study, participants were required to demonstrate proficiency in English, be at least 18 years old, and currently enrolled in a university located in a foreign country different from their country of origin.

These descriptive statistics provide valuable insights into the demographic profile of the sample, encompassing variables such as gender distribution, age range, level and year of study also country of origins of international students. Comprehending these characteristics is crucial for contextualizing the study's findings and assessing their potential demographic influences, thus enhancing the generalizability of the results to the broader population.

The following section provides a hypothesis-driven analysis of the findings from the current study, indicating whether the hypotheses are supported or rejected.

The Association between Homesickness and Psychological Wellbeing

H1: Homesickness will be negatively associated with psychological wellbeing.

As hypothesized under H1, homesickness was negatively correlated to psychological wellbeing ($r = -.607, p < .01$). This suggests that homesickness played a pivotal role in influencing the overall psychological state of international students, contributing to lower levels of wellbeing and potentially exacerbating feelings of distress and dissatisfaction with life. This finding aligns with previous research (Yaghoobi et al., 2008; O'Reilly, 2010; Thurber & Walton, 2012). Additionally, Lee and Yoon (2020) conducted a qualitative study indicating that homesickness impeded students' focus on studies, social engagement, and ability to maintain positive relationships. This aligns with existing literature suggesting that homesickness, characterized by feelings of loneliness, longing, and distress due to separation from familiar environments, social networks, and support systems, can have detrimental effects on psychological wellbeing.

Homesickness Predicting Psychological Wellbeing

H3: Homesickness will significantly predict psychological wellbeing.

The significant predictive relationship of homesickness on psychological wellbeing is consistent with existing literature (Rajapaksa & Dundes, 2002; Thurber, 2012; Can, 2015). This relationship is significant because homesickness is often accompanied by a range of negative emotions, including loneliness, sadness, and anxiety, which can impact an individual's mental and emotional state. Furthermore, it is seen that homesickness exacerbates preexisting mental health concerns and increased levels of stress and depression among international students. Firstly, the experience of homesickness often triggers a range of negative emotions, including sadness, loneliness, and longing for familiar environments and support systems, which can disrupt students' overall emotional balance and satisfaction with life. Additionally, homesickness may lead to social isolation as students withdraw from social interactions due to feelings of sadness or disconnection, further exacerbating feelings of loneliness and diminishing psychological wellbeing. Overall, homesickness represents a significant psychological stressor for international students, affecting various aspects of their emotional, social, and academic functioning and contributing to low psychological wellbeing. Addressing homesickness-related distress through supportive interventions and resources is essential for promoting the mental health and overall wellbeing of international students.

In sum, it can be stated that the findings of the current study supported both the first (H1) and third hypothesis (H3).

The Association and Predictive value of Homesickness on Psychopathology

H2: Homesickness will be positively associated with levels of depression, anxiety and stress.

H4: Homesickness will significantly predict psychopathological symptoms including depression, anxiety and stress.

Homesickness and Depression

The present study revealed a positive correlation between homesickness and depression, $r = .508, p < .01$, such that as levels of homesickness increase, levels of depression also increase. Likewise, homesickness was also seen as a significant predictor of depression. In simpler terms, individuals who experience higher levels of homesickness are more likely to also experience higher levels of depression. This outcome implies that homesickness significantly influences changes in depression levels among the study participants. These findings align with earlier research suggesting that homesickness among college students leaving home can lead to challenges in adjustment and persistent thoughts about home, which in turn may contribute to feelings of depression (Van Tilburg et al., 1999; Stroebe, 2002; Lee, 2004; Moeini et al., 2018). Said otherwise, homesickness exhibited an indirect association with happiness, suggesting that higher scores on measures of homesickness were associated with lower levels of happiness, as suggested by Moeini et al. (2018).

Homesickness and Anxiety

The findings of the current study indicated a significant positive relationship between homesickness and anxiety, $r = .553, p < .01$, which means that as levels of homesickness increase, levels of anxiety also tend to increase. In other words, individuals experiencing higher levels of homesickness are more likely to experience higher levels of anxiety. This goes in line with Thurber's (1995) finding who also found a positive correlation between homesickness and anxiety symptoms.

In essence, the move to a new country, distant from the comforts of home and familiar support networks, can trigger homesickness among international students, consequently heightening levels of anxiety. Additionally, uncertainties regarding their future, academic performance anxieties, and the challenges of navigating daily life in a foreign setting can exacerbate their anxiety. Furthermore, the separation from home can evoke feelings of loneliness, longing, and nostalgia, further disrupting their sense of security and belonging in the new environment, thereby amplifying their anxiety levels. There is also the fear of not being accepted or belonging which can heighten anxiety and exacerbate feelings of homesickness as students grapple with their sense of identity and belonging in a foreign country.

Homesickness and Stress

This study also revealed a notable positive correlation between homesickness and stress, exhibiting a coefficient of $r=.408$, $p<.01$, implying that students who reported feelings of homesickness tended to also experience elevated levels of stress. This is in line with the findings of Rathakrishnan et al. (2021) who conducted a study on 100 male and 100 female students whereby homesickness and perceived stress were found to be significantly correlated ($r = 0.314$, $p<.01$). This can be explained by, since homesickness is characterized by feelings of longing, nostalgia, and discomfort due to separation from familiar environments and support systems, the former can evoke emotional distress and contribute to stress. Berry (2005) asserted that international students encounter acculturative stress, which encompasses feelings of alienation, depression, anxiety, and identity confusion, commonly experienced during cross-cultural transitions. Moreover, the challenges associated with adapting to a new cultural environment, managing academic responsibilities, and navigating daily life in a foreign country can exacerbate feelings of homesickness and amplify stress levels. In addition to that, the uncertainty and unpredictability of the transition process may further contribute to heightened stress levels.

All in all, the findings of the current study supported the aforementioned hypotheses. Undoubtedly, the development of these psychopathologies may be explained by cultural transition and acculturation, just to name a few. Moreover, when students leave their home country to study abroad, they often face a multitude of challenges, including adaptation to the new social environment, language barriers, academic demands, and living conditions. These challenges can trigger feelings of homesickness, characterized by longing for familiar surroundings, family, friends, and cultural norms. The experience of homesickness eventually evokes a sense of loss, grief, and disconnection, which can contribute to feelings of sadness, loneliness, and isolation. Over time, these distressing emotions and thoughts can exacerbate feelings of hopelessness, helplessness, and worthlessness, which are hallmark symptoms of depression. Additionally, the chronic nature of homesickness and the ongoing challenges faced by international students in adapting to a new environment can create a persistent state of anxiety and stress. The uncertainty, social isolation, and cultural adjustment difficulties inherent in homesickness can contribute to heightened levels of anxiety and stress, further compounding the negative impact on mental health. Consequently, the co-occurrence of depression, anxiety, and stress in response to homesickness underscores the interconnectedness of these mental health outcomes and highlights the importance of addressing homesickness as a multifaceted psychological phenomenon in international student populations. In sum, both the second (H2) and fourth (H4) hypothesis were supported in the present study as discussed above.

Importantly, the predictive power of homesickness on psychological well-being and psychopathology underscores the importance of adopting a comprehensive approach to supporting the adjustment of international students. Strategies may include providing social support networks, facilitating acculturation processes, offering counselling services to address homesickness-related distress, and implementing training programs to enhance emotional intelligence and resilience, which is an important skill in the adjustment period. By addressing homesickness, institutions can empower international students to thrive academically, socially, and psychologically in their new cultural contexts, ultimately fostering a sense of belonging and well-being.

Limitations of the Present Study

This study was bound by some limitations. To begin, the sample size ($N=200$) makes the study unrepresentative of all international students. Thus, it is difficult to generalize this research. Also, there may be discrepancies in interpreting the questions since no face-to-face clarification could be provided with online questionnaires. It is also possible that students overinflated responses in self-reported questions bringing in measurement errors or may have had different states of mind when answering the questions.

Future Recommendations

To enable generalization of the results, this study can be improved and repeated with a large student sample. Future researchers are urged to conduct a thorough investigation into the detection of mental health disorders among international students. Moreover, future studies could consider additional factors that may influence the relationship between homesickness, psychological wellbeing and psychopathology. For example, individual differences in personality, social support, coping strategies, levels of emotional intelligence and cultural background could confound the results. Also identifying protective factors and resilience mechanisms is crucial to mitigate the negative effects of homesickness on

psychological wellbeing and the development of various psychopathologies. Understanding these factors could inform interventions aimed at promoting resilience and mental health among individuals experiencing homesickness. In the light of the multiple stressors that students face, the question of coping styles and defense mechanisms influencing psychological health is particularly important. Indeed, conducting longitudinal studies to examine the trajectories of homesickness, psychological wellbeing and psychopathology over time is essential. Such research would allow for exploring how these variables interact and influence each other across different life stages and transitions, providing valuable insights into their developmental pathways. A small-scale qualitative study could be conducted to explore the reasons behind why some students experience significant distress upon arriving at college. Furthermore, future research could replicate these findings using alternative research designs, such as qualitative or mixed methods approaches, to gain a more comprehensive understanding of these variables. Lastly, exploring the ways in which experiences of homesickness, psychological health and psychopathology are shaped by intersectionality of identities, such as race, ethnicity, gender, sexual orientation, and socioeconomic class, is vital. Research in this area could shed light on the unique challenges faced by individuals with multiple marginalized identities and inform the development of culturally sensitive support services.

Implications of the Study

Perhaps the major implication emerging from these results is that in order to render effective support and improve psychological wellbeing of international students facing homesickness, universities must prioritize the development of programs and resources tailored to address the emotional and psychological aspects of their experience. Understanding the prevalence and impact of homesickness on international students' well-being underscores the importance of creating inclusive campus environments that foster a sense of belonging and provide adequate support mechanisms. By recognizing and addressing homesickness as a significant challenge for international students, universities can enhance student retention, academic success, and overall satisfaction with the university experience. Moreover, implementing targeted interventions, such as orientation program and peer support networks, can help mitigate homesickness and promote successful adjustment to the academic and social aspects of university life.

Furthermore, university communities can organize multicultural campus festivals and events, providing opportunities for students to share their cultural heritage and learn from others. Universities may also consider incorporating modules or workshops on cultural adjustment into their curriculum. This would aim to equip international students with the necessary skills to navigate homesickness and improve their psychological wellbeing. Armed with this understanding, universities can create supportive environments conducive to the emotional growth and resilience of international students, helping them manage challenges related to cultural adjustment effectively. Additionally, universities can offer counseling services to students experiencing low psychological wellbeing and homesickness. Counseling services may include individual therapy, group counseling, workshops, and outreach programs tailored to the specific needs of students experiencing homesickness and other mental health issues. These services provide a supportive and confidential environment where students can discuss their concerns, receive guidance, and develop coping strategies. By addressing the emotional and psychological needs of students, universities can help them navigate challenges effectively and promote their overall wellbeing. Insights from the study could influence university policies related to international student support. This might involve changes in housing arrangements, community engagement initiatives, and the creation of inclusive environments that mitigate homesickness and promote psychological resilience.

CONCLUSION

The present study seeks to explore the influence of homesickness on the psychological wellbeing of international students, with a specific emphasis on its predictive capability and potential implications for the emergence of psychopathological symptoms. The research revealed that homesickness serves as a predictor for psychopathologies such as depression, anxiety, and stress and also significantly affect the psychological wellbeing of international students.

The study also delineates the significant psychological challenges faced by international students, including feelings of homesickness, which can have detrimental effects on their overall wellbeing. Homesickness often arises from the stark changes in environment, separation from familiar support systems, and cultural differences experienced upon entering a foreign educational institution. These stressors not only contribute to a decline in psychological wellbeing but can also exacerbate the development of various mental health issues such as depression, anxiety, and stress. Simply put, this study demonstrated that higher levels of homesickness are associated with increased severity of psychopathological symptoms and decreased levels of psychological well-being among international university students.

The findings of the study underscore the importance of considering homesickness as a potential risk factor for mental health issues among international students. Additionally, they emphasize the ongoing necessity for research and education regarding homesickness and its impact on mental health outcomes. Furthermore, the study highlights the continued need for increased awareness and ongoing research into the implications of homesickness for mental health outcomes. Future studies should continue to explore the mechanisms underlying the relationship between homesickness and psychopathologies, as well as identify effective strategies for prevention and intervention.

Last but not the least, by implementing customized interventions like workshops, support groups and training sessions specifically designed to foster cultural adjustment, resilience, coping strategies, and overall well-being, universities can equip international students with the necessary skills to navigate the complexities of their new environment. This tailored technique addresses the unique needs of international students, empowering them to effectively overcome challenges. As a result, this proactive approach may contribute to a reduction in the prevalence of psychopathologies such as depression, anxiety, and stress among this demographic, ultimately promoting a healthier and more fulfilling academic experience for international students.

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