Open Access Library Journal
2025, Volume 12, e12757
ISSN Online: 2333-9721
ISSN Print: 2333-9705

Sociodemographic Risk Factors and Mental Health Symptomatology among University Students in Urban Malaysia

Nur Shahirah Nasir[1], Muhamad Zakuan Abdullah[1], Nor Akmal Yati Sulong[2], Roskiyani Mistamiruddin[1], Mohd Rohaizad Md Roduan[3], Nur Syakirah Hasnan[1], Nur Jannah Alias[1]

[1]Faculty of Health Sciences, University of MAIWP International, Kuala Lumpur, Malaysia
[2]Faculty of Pharmacy, University of MAIWP International, Kuala Lumpur, Malaysia
[3]Department of Biological Science and Biotechnology, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, Bangi, Malaysia
Email: shahirah@ucmi.edu.my

How to cite this paper: Nasir, N.S., Abdullah, M.Z., Sulong, N.A.Y., Mistamiruddin, R., Roduan, M.R.M., Hasnan, N.S. and Alias, N.J. (2025) Sociodemographic Risk Factors and Mental Health Symptomatology among University Students in Urban Malaysia. *Open Access Library Journal*, **12**: e12757.
https://doi.org/10.4236/oalib.1112757

Received: December 2, 2024
Accepted: July 27, 2025
Published: July 30, 2025

Abstract

Mental health issues have become a growing concern in Malaysia, particularly among university students. This study aimed to screen the mental health status of students at selected private universities in Kuala Lumpur, identify mental health symptoms across four domains: somatic symptoms, anxiety, social dysfunction and depression. Besides that, examine the relationship between sociodemographic factors and mental health status. A survey was conducted among 403 students using cluster sampling, and data were collected through the 28-item General Health Questionnaire (GHQ-28). Sociodemographic variables such as gender, age, race, number of siblings, family income, living area, body mass index (BMI), and cumulative grade point average (CGPA) were assessed for their potential influence on mental health. The data were analyzed using the Chi-square test. The findings revealed that students exhibited mild symptoms of mental distress across the four domains: 48.4% reported somatic symptoms, 41.9% reported anxiety, 57.3% experienced social dysfunction, and 50.6% experienced depression. A significant association was found between low family income and the presence of social dysfunction and depression, particularly among students aged 24 and above. However, no significant relationships were identified between somatic symptoms, anxiety, or social dysfunction and other variables such as gender, living area, BMI, and CGPA. In conclusion, students at selected private universities in Kuala Lumpur showed signs of mild mental health issues, with low family income and older age emerging as key risk factors. These findings highlight the need for preventive measures and mental health interventions to address the increasing prevalence of psychological distress among university students.

Subject Areas

Public Health, Mental Health

Keywords

Anxiety, Mental Health, Sociodemographic Factor, University Student

1. Introduction

University students' mental health is a major concern since they frequently suffer from higher levels of mental anguish than the overall population. In Malaysia, the issue is particularly noticeable among students at private universities, where high tuition fees, competitive academic environments, and urban lifestyle pressures more intensify the risk of mental health challenges. Previous studies have underrepresented students from private universities, with limited focus on certain demographic. Therefore, the present study specifically concentrates on students from private universities within the urban landscape of Kuala Lumpur. It incorporates a broader range of variables including income level, parental education, living arrangements, and academic level to assess their impact of social connectivity on mental health outcomes.

The study's particular goals are:

- To screen the mental health status among students at selected private universities in Kuala Lumpur.
- To identify the mental health categories among students in four domains: somatic symptoms, anxiety, social dysfunction, and depression.
- To determine the relationship between sociodemographic factors and mental health status among students.

The General Health Questionnaire (GHQ-28) will be used to evaluate mental health state. This standardized instrument provides a thorough assessment in four areas: Somatic symptoms, anxiety, social dysfunction and depression. The GHQ-28 is a widely validated screening instrument has demonstrated strong psychometric properties in diverse populations, including university students.

By integrating these methodological enhancements, the study contributes to a more understanding of how sociodemographic factor influence student mental health within Malaysia's private higher education sector, eventually promoting to effective intervention strategies.

2. Methodology

2.1. Study Design

This is a cross-sectional study conducted among full-time undergraduate students enrolled at the participating private universities. Initially, some universities were purposively selected based on the willingness to participate. Then, stratified random sampling was used within each university to ensure representation across

faculties. Approximately 4000 population, the sample size calculation was performed using Cochran's formula, with a 95% confidence level and a 5% margin of error, adjusted for a finite student population. Anticipating the final sample size was set at 403 students. Data were collected through a self-administered structured questionnaire, distributed both online (via email and media social platforms) and direct person to achieve the participation.

2.2. Instrument

The 28-item General Health Questionnaire (GHQ 28) was administered to collect data. It assessed mental health in four domains of somatic symptoms (items 1 - 7), anxiety (items 8 - 14), social dysfunction (items 15 - 21), and depression (items 22 - 28). The validity of the GHQ 28 has been investigated in earlier studies [1] [2]. Each subscale of the GHQ 28 consists of seven items which are scored on a 4-point Likert scale from 0 to 3 (0 = absence of problem and 3 = existence of a severe problem in each item). In each subscale, 0 - 7 indicates the absence of health problems; 7 - 12 indicates mild problems; 12 - 17 indicates moderate problems, and 17 - 21 indicates severe problems. Consequently, while the total score is between 0 and 23, it confirms the stable mental health of the participants; a score higher than 23 denotes some level of symptoms associated with mental disorders, *i.e.*, 23 - 41, 41 - 61, and 61 - 84 indicate the presence of mild, moderate, and severe problems, respectively. The questionnaire also contained demographic characteristics including the student's age, the season of birth, school grade, body mass index (BMI), grade point average (GPA), and household income.

3. Statistical Analysis

Using Cronbach's alpha, the GHQ-28 instrument's dependability was evaluated; values above $\alpha > 0.80$ showed great internal consistency among its four subscales: somatic symptoms, anxiety, social dysfunction and depression. This shows that the instrument consistently measures mental health condition in the relevant fields. In actual study, the students were ensured of confidentiality replies, and the GHQ 28 was distributed among students and had good engagement because trust can be built up. This process enhanced the accuracy of the obtained results. The collected data were analyzed using t-tests, analysis of variance, and Chi-square test.

4. Result

Figure 1 presents the demographic distribution of the study participants. The sample comprised both male and female respondents, with the majority falling within the 18 - 23-year age range. Participants were categorized based on body mass index (BMI) into underweight, normal weight, and overweight groups, reflecting a diverse health profile within the cohort. Academic performance, measured by cumulative grade point average (CGPA), showed a predominant concentration in the 2.01 - 3.00 range, with a notable proportion achieving a CGPA above 3.00.

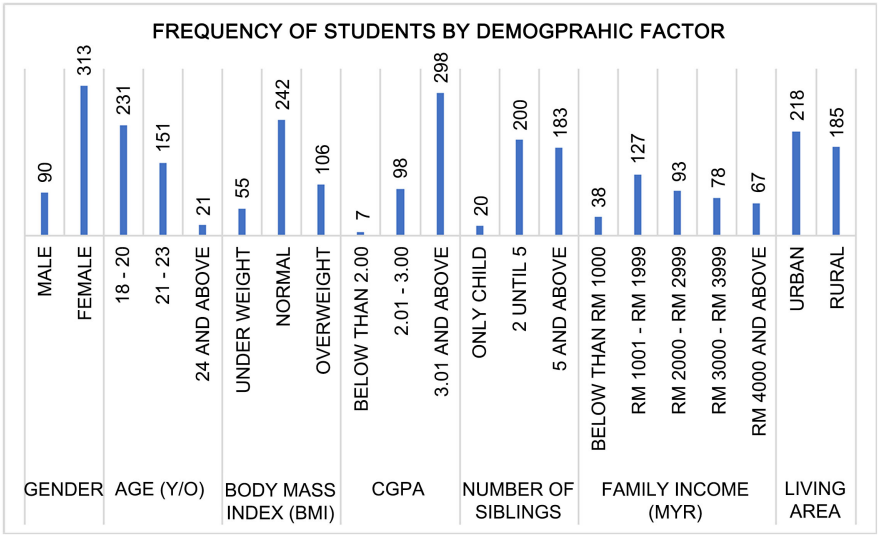

Figure 1. The distribution of demographic data among students.

Family background characteristics included the number of siblings, ranging from only-child households to families with five or more children. Socioeconomic status, assessed through reported monthly family income in Malaysian Ringgit (MYR), ranged from less than RM1000 to above RM4000, indicating varied economic representation. Additionally, participants were divided from both urban and rural living environments.

In Table 1, the distribution of mental health status assessment of Malaysian university students based on General Health Questionnaire GHQ-28 shows mild in somatic symptoms, anxiety and social dysfunction among university students. The result shows that the mental health status among students at selected private universities has mild symptom of mental illness through four domains of mental distress which 48.4% has somatic symptoms, 41.9% has anxiety, 57.3% has social dysfunction and 50.6% has depression among student universities. It could be influenced by a variety of individual, societal, and academic factors. It is essential to consider that these are complex issues influenced by a myriad of social determinants of health such as social support, housing, food security [3] and individual factors like self-esteem, perceived stress, and exercise frequency [4].

Table 1. The distribution of mental health status assessment of Malaysian students based on GHQ-28.

Mental distress	n (%)			
	Absent	Mild	Moderate	Severe
Somatic symptoms	103 (25.6)	**195 (48.4)**	85 (21.2)	20 (5.0)
Anxiety	119 (29.5)	**169 (41.9)**	91 (22.6)	24 (6.0)
Social dysfunction	24 (6.0)	**231 (57.3)**	130 (32.3)	18 (4.5)
Depression	**204 (50.6)**	98 (24.3)	67 (16.6)	34 (8.4)

Based on Table 2, there is no significant relationship between somatic symptoms and anxiety (Table 3) with gender, age, BMI, CGPA, number of siblings, family income and living area. Mental health is influenced by a complex interplay of genetics, environment, and personal circumstances. The factors that were identified may not have a strong influence on mental health as other factors not measured in the study.

Table 2. The frequency distribution and significance of relationships between GHQ-28 scores for somatic symptoms with sociodemographic factors.

Variables	All N = 403	GHQ-28 score (Somatic symptoms) n (%)				*P value*
		Absent	Mild	Moderate	Severe	
Gender						
Male		22 (24.4)	44 (48.9)	15 (16.7)	9 (10.0)	**0.070**
Female		81 (25.9)	151 (48.2)	70 (22.4)	11 (3.5)	
Age						
18 - 20		58 (25.1)	112 (48.5)	49 (21.2)	12 (5.2)	
21 - 23		41 (27.2)	73 (48.3)	29 (19.2)	8 (5.3)	**0.761**
24 and above		4 (19.0)	10 (47.6)	7 (33.3)	0 (0.0)	
BMI						
Underweight		10 (18.2)	32 (58.2)	11 (20.0)	2 (3.6)	
Normal		65 (26.9)	110 (45.5)	55 (22.7)	12 (5.0)	**0.666**
Overweight		28 (26.4)	53 (50.0)	19 (17.9)	6 (5.7)	
CGPA						
Below 2.00		1 (14.3)	4 (57.1)	3 (2.4)	0 (0.0)	
2.01 - 3.00		23 (23.5)	49 (50.0)	20 (20.4)	6 96.1)	**0.947**
3.01 and above		79 (26.5)	142 (47.7)	63 (21.1)	14 (4.7)	
Number of siblings						
Only child		6 (30.0)	7 (35.0)	5 (25.0)	2 (10.0)	
2 - 4		49 (24.5)	106 (53.0)	33 (16.5)	12 (6.0)	**0.182**
5 and above		48 (26.2)	82 (44.8)	47 (25.7)	6 (3.3)	
Family income						
Below RM 1000		8 (21.1)	22 (57.9)	5 (13.2)	3 (7.9)	
RM 1000 - 1999		35 (27.6)	56 (44.1)	29 (22.8)	7 (5.5)	
RM 2000 - 2999		19 (20.4)	48 (51.6)	21 (22.6)	5 (5.4)	**0.739**
RM 3000 - 3999		18 (23.1)	40 (51.3)	17 (21.8)	3 (3.8)	
RM 4000 and above		23 (34.3)	29 (43.3)	13 (19.4)	2 (3.0)	
Living area						
Urban		57 (26.1)	100 (45.9)	51 (23.4)	10 (4.6)	**0.569**
Rural		46 (24.9)	95 (51.4)	34 (18.4)	10 (5.4)	

Results were analyzed using Chi-Square. The significance *P*-value is less than 0.05.

Table 3. The frequency distribution and significance of relationships between GHQ-28 scores for anxiety with sociodemographic factors.

Variables	All N = 403	GHQ-28 score (Anxiety) n (%)				*P value*
		Absent	Mild	Moderate	Severe	
Gender						
Male		26 (28.9)	41 (45.6)	16 (17.8)	7 (7.8)	**0.530**
Female		93 (29.7)	128 (40.9)	75 (24.0)	17 (5.4)	
Age						
18 - 20		65 (28.1)	104 (45.0)	49 (21.2)	13 (5.6)	
21 - 23		53 (35.1)	53 (35.1)	35 (23.2)	10 (6.6)	**0.090**
24 and above		1 (4.8)	12 (57.1)	7 (33.3)	1(4.8)	
BMI						
Underweight		16 (29.1)	22 (40.0)	15 (27.3)	2 (3.6)	
Normal		69 (28.5)	103 (42.6)	57 (23.6)	13 (5.4)	**0.699**
Overweight		34 (32.1)	44 (41.5)	19 (17.9)	9 (8.5)	
CGPA						
Below 2.00		3 (42.9)	3 (42.9)	1 (14.3)	0 (0.0)	
2.01 - 3.00		25 (25.5)	40(40.8)	26 (26.5)	7 (7.1)	**0.830**
3.01 and above		91 (30.5)	126 (42.3)	64 (21.5)	17 (5.7)	
Number of siblings						
Only child		7 (35.0)	7 (35.0)	4 (20.0)	2 (10.0)	
2 - 4		55 (27.5)	94 (47.0)	40 (20.0)	11 (5.5)	**0.526**
4 and above		57 (31.1)	68 (37.2)	47 (25.7)	11 (6.0)	
Family income						
Below RM 1000		11 (28.9)	16 (42.1)	8 (21.1)	3 (7.9)	
RM 1000 - 1999		42 (33.1)	44 (34.6)	32 (25.2)	9 (7.1)	
RM 2000 - 2999		21 (22.6)	45 (48.4)	21 (22.6)	6 (6.5)	**0.796**
RM 3000 - 3999		23 (29.5)	33 (42.3)	18 (23.1)	4 (5.1)	
RM 4000 and above		22 (32.8)	31 (46.3)	12 (7.9)	2 (3.0)	
Living area						
Urban		59 (27.1)	97 (44.5)	49 (22.5)	13 (6.0)	
Rural		60 (32.4)	72 (38.9)	42 (22.7)	11 (5.9)	**0.632**

Results were analyzed using Chi-Square. The significance *P*-value is less than 0.05.

However, in Table 4, social dysfunction shows a significant ($P < 0.05$) difference between family income compared to other factors. Students may feel stigmatized or self-conscious if they cannot afford the same lifestyle as their peers. They may also avoid situations where they anticipate feeling judged or disadvantaged due to their income level.

Table 4. The frequency distribution and significance of relationships between GHQ-28 scores for social dysfunction with sociodemographic factors.

Variables	All N = 403	GHQ-28 score (Social dysfunction) n (%)				*P value*
		Absent	Mild	Moderate	Severe	
Gender						
Male		6 (6.7)	42 (46.7)	36 (40.0)	6 (6.7)	
Female		18 (5.8)	189 (60.4)	94 (30.0)	12 (3.8)	**0.122**
Age						
18 - 20		13 (5.6)	138 (59.7)	72 (31.2)	8 (3.5)	
21 - 23		8 (5.3)	81 (53.6)	52 (34.4)	10 (6.6)	**0.358**
24 and above		3 (14.3)	12 (57.1)	6 (28.6)	0 (0.0)	
BMI						
Underweight		2 (3.6)	31 (56.4)	22 (40.0)	0 (0.0)	
Normal		16 (6.6)	140 (57.9)	76 (31.4)	10 (4.1)	**0.349**
Overweight		6 (5.7)	60 (56.6)	32 (30.2)	8 (7.5)	
CGPA						
Below 2.00		0 (0.0)	5 (71.4)	2 (28.6)	0 (0.0)	
2.01 - 3.00		5 (5.1)	50 (51.0)	37 (37.8)	6 (6.1)	**0.681**
3.01 and above		19 (6.4)	176 (59.1)	91 (30.5)	12 (4.0)	
Number of siblings						
Only child		2 (10.0)	7 (35.0)	9 (45.0)	2 (10.0)	
2 - 4		12 (6.0)	120 (60.0)	56 (28.0)	12 (6.0)	**0.128**
4 and above		10 (5.5)	104 (56.8)	65 (35.5)	4 (2.2)	
Family income						
Below RM 1000		0 (0.0)	25 (65.8)	13 (34.2)	0 (0.0)	
RM 1000 - 1999		12 (9.4)	71 (55.9)	36 (28.3)	8 (6.3)	
RM 2000 - 2999		3 (3.2)	51 (54.8)	34 (36.6)	5 (5.4)	**0.035***
RM 3000 - 3999		2 (2.6)	40 (51.3)	31 (39.7)	5 (6.4)	
RM 4000 and above		7 (10.4)	44 (65.7)	16 (23.9)	0 (0.0)	
Living area						
Urban		14 (6.4)	124 (56.9)	69 (31.7)	11 (5.0)	**0.896**
Rural		10 (5.4)	107 (57.8)	61 (33.0)	7 (3.8)	

Results were analyzed using Chi-Square. The significance *P*-value is less than 0.05.

According to Table 5, there is show significant ($P < 0.05$) difference between depression and age 24 and above. They might be more likely to self-finance their education, leading to increased financial pressure compared to younger students who may still be receiving parental support. So, a lot of responsibility at this certain age compared age below 24 will show mild symptoms of depression.

Table 5. The frequency distribution and significance of relationships between GHQ-28 scores for depression with sociodemographic factors.

Variables	All N = 403	GHQ-28 score (Depression) n (%)				*P value*
		Absent	Mild	Moderate	Severe	
Gender						
Male		48 (53.3)	21 (23.3)	12 (13.3)	9 (10.0)	**0.728**
Female		156 (49.8)	77 (24.6)	55 (17.6)	25 (8.0)	
Age						
18 - 20		113 (48.9)	64 (27.7)	32 (13.9)	22 (9.5)	
21 - 23		87 (57.6)	25 (16.6)	30 (19.9)	9 (6.0)	**0.005***
24 and above		4 (19.0)	9 (42.9)	5 (23.8)	3 (14.3)	
BMI						
Underweight		31 (56.4)	16 (29.1)	4 (7.3)	4 (7.3)	
Normal		117 (48.3)	60 (24.8)	42 (17.4)	23 (9.5)	**0.395**
Overweight		56 (52.8)	22 (20.8)	21 (19.8)	7 (6.6)	
CGPA						
Below 2.00		3 (42.9)	1 (14.3)	2 (28.6)	1 (14.3)	
2.01 - 3.00		49 (50.0)	20 (20.4)	20 (20.4)	9 (9.2)	**0.737**
3.01 and above		152 (51.0)	77 (25.8)	45 (15.1)	24 (8.1)	
Number of siblings						
Only child		11 (55.0)	3 (15.0)	4 (20.0)	2 (10.0)	
2 - 4		102 (51.0)	48 (24.0)	31 (15.5)	19 (9.5)	**0.915**
4 and above		91 (49.7)	47 (25.7)	32 (17.5)	13 (7.1)	
Family income						
Below RM 1000		22 (57.9)	8 (21.2)	5 (13.2)	3 (7.9)	
RM 1000 - 1999		68 (53.5)	28 (18.1)	22 (17.3)	14 (11.0)	
RM 2000 - 2999		38 (40.9)	25 (26.9(	23 (24.7)	7 (7.5)	**0.152**
RM 3000 - 3999		46 (59.0)	19 (24.4)	8 (10.3)	5 (6.4)	
RM 4000 and above		30 (44.8)	23 (34.3)	9 (13.4)	5 (7.5)	
Living area						
Urban		109 (50.0)	62 (28.4)	34 (15.6)	13 (6.0)	**0.069**
Rural		95 (51.4)	36 (19.5)	33 (17.8)	21 (11.4)	

Results were analyzed using Chi-Square. The significance *P*-value is less than 0.05.

For Table 6, the relationship between sociodemographic and mental health status among students at selected private university in Kuala Lumpur shows no significant differences. The absence of significant relationships between sociodemographic factors (such as gender, age, BMI, CGPA, number of siblings, family income, and living area) and the mental health status of university students could

be due to the specific cultural, economic, or institutional context of the study may shape the experience of students in ways that reduce the impact of these variables on mental health.

Table 6. Association of mental health status with sociodemographic variables.

Variables	All N = 403	GHQ-28 score, n (%)		*P value*
		Normal (≤23)	Distress (>23)	
Gender				
Male		9 (10.0)	81 (90)	0.907
Female		30 (9.6)	283 (90.4)	
Age				
Below 20		23 (10.0)	208 (90.0)	0.826
20 and above		16 (9.3)	156 (90.7)	
BMI				
Normal		23 (9.5)	219 (90.5)	0.885
Abnormal		16 (9.9)	145 (90.1)	
CGPA				
Below 3.00		8 (7.6)	97 (92.4)	0.407
3.01 and above		31 (10.4)	267 (89.6)	
Number of siblings				
Only child		3 (15.0)	17 (85.0)	0.409
More than one		36 (9.4)	347 (90.6)	
Family income				
Below RM 2000		17 (10.3)	148 (89.7)	0.724
RM 2001 and above		22 (9.2)	216 (90.8)	
Living area				
Urban		23 (10.6)	195 (89.4)	0.520
Rural		16 (8.6)	169 (91.4)	

Results were analyzed using Chi-Square. The significance *P*-value is less than 0.05 at 95% confidence interval (CI).

5. Discussion

The observed mild levels of somatic symptoms, anxiety, and social dysfunction among university students may be influenced by a combination of individual, societal, and academic factors. These findings align with previous research indicating that university students often experience psychological distress due to academic pressures, social challenges, and lifestyle changes [5].

Somatic symptoms could include physical manifestations of stress and emotional distress, such as headaches, muscle tension, or gastrointestinal issues. Mild levels may result from students experiencing normal levels of stress associated

with university life or could be an early indication of more significant stress that has not yet reached a severe level. These symptoms may result from the normal stress associated with university life or serve as early indicators of more significant stress [5].

Anxiety among university students can stem from various sources, including academic performance concerns, future career prospects, and personal relationships. Studies have shown that factors such as poor sleep quality, lack of financial support, and social isolation contribute significantly to anxiety levels in this population [1] [6].

For social dysfunction, it refers to difficulties in social interactions and fulfilling expected social roles. Students might experience mild levels because they are adapting to new social environments, facing challenges in balancing their social life with academic demands, or feeling the pressure of fitting into peer groups. It's also essential to consider that these are complex issues influenced by a myriad of social determinants of health such as social support, housing, food security [3] and individual factors like self-esteem, perceived stress, and exercise frequency [4]. Furthermore, financial constraints can exacerbate these issues, limiting students' ability to participate in social activities and leading to social isolation [7].

The lack of a significant relationship between somatic symptoms and anxiety with factors such as gender, age, BMI, CGPA, number of siblings, family income, and living area could be due to several reasons it may cause heterogeneity of the student population: If the student population is diverse and their experiences varied, this can dilute effects that might be more pronounced in a more homogenous group. Besides, students might have developed strong coping mechanisms or resilience that buffer against the impact of these factors on their mental health [5]. It must be concern about the GHQ-28 questionnaire is the only tools that used to measure somatic symptoms, and anxiety may not be sensitive enough to detect differences related to these variables, or there may be limitations in how the variables were measured. Furthermore, of these variables, like CGPA or BMI, may change over time, and the point of measurement may not reflect the period when they have the most significant impact on mental health.

Family income may contribute to social dysfunction among university students, as those from lower-income backgrounds might face financial barriers to fully participating in university life, including social events, student clubs, and extracurricular activities. Financial difficulties can lead to stress, anxiety, and depression, which in turn can impair social functioning [7]. Financial stress is a well-documented risk factor for psychological distress, particularly among young adults navigating the transition to independence [2]. Besides, lower income might necessitate taking on part-time work, which can conflict with studies and reduce the time available for socializing, leading to social isolation. Concerns about finances can lead to stress, anxiety, and depression, which in turn can impair social functioning. A study in Malaysia found that after pandemic COVID 19, students from the B40 income group exhibited higher levels of anxiety and depression com-

pared to their peers from higher-income families [8]. Students under financial strain may experience increased levels of anxiety and depressive symptoms, often stemming from worries about tuition, housing, food insecurity, and long-term debt [9]. Financial difficulties can affect academic performance, and students who struggle academically might withdraw from social activities either due to the time needed for studies or feelings of shame or inadequacy. Research indicates that lower socioeconomic status is associated with increased social anxiety among university students [10]. Additionally, lower socioeconomic status has been linked with poorer psychological adaptation abilities and higher susceptibility to psychological symptoms as observed in "The Influence of Family Factors on College Students' Self-esteem" [11]. Consequently, family income plays a critical role in shaping mental health literacy, particularly the ability to recognize symptoms, manage distress, and seek appropriate support. Students from higher-income families generally have greater access to mental health resources, enabling earlier intervention and better support systems. Conversely, those from lower-income backgrounds may lack awareness or face stigma, hindering help-seeking behaviors [12]. It's important to note that social dysfunction among university students can have multifaceted causes, and while family income is a significant factor, it interacts with a range of other individual and environmental factors.

Compared to their younger counterparts, students aged 24 and above may experience higher levels of depression due to the differing life stages they are in, often accompanied by greater responsibilities and stressors. Older students may be dealing with different life responsibilities, such as full-time employment, family care, or other personal commitments, which can contribute to stress and depression. All of these additional stressors can contribute to increased levels of depression [5]. A study conducted in Malaysia during the COVID-19 pandemic revealed that students aged over 20 years had increased odds of experiencing anxiety. This may be attributed to greater awareness of academic and career-related uncertainties, as well as heightened responsibilities outside the academic environment [13]. Older students might feel out of place or have difficulty integrating with younger peers, potentially leading to feelings of isolation or loneliness. This age group may also be more acutely aware of the opportunity costs of attending university, such as lost income or career advancement, which can add to stress and depressive feelings. With increasing age, there are often more health concerns, which can affect physical well-being and contribute to mental health challenges like depression. It is important to consider that the experience of depression is personal and multifactorial, and these factors may not apply to all students aged 24 and above. Each individual's experience will vary based on a complex interplay of personal circumstances, personality, social support systems, and coping mechanisms. Research indicates that age-related differences in mental health outcomes among university students warrant targeted support strategies to address their specific needs [14].

In summary, there are various factors at play regarding mental health challenges among university students [15]. Mental health is influenced by numerous

factors including genetic predisposition, personal history, current life stressors, personality traits, and coping skills. Sociodemographic factors might play a less direct role or be mitigated by other more influential factors [16].

6. Conclusion

The study presents an evidence on mental distress prevalence and risk factors among students of some of the private universities in Kuala Lumpur, Malaysia. Notably, the research confirmed mild somatic symptoms, anxiety, and social dysfunction among students. Nonetheless, examination found no statistically significant correlations of these measures of mental health with any of these sociodemographic indicators: gender, age, body mass index, academic performance, number of siblings, or neighborhood of residence with the sole exception being family income and social dysfunction. This finding emphasizes the complexity of determinants of mental health and suggests that typical sociodemographic factors may not be employed as direct predictors of student mental distress in this context. One of the key innovations of this study is its comprehensive demographic analysis, which refutes the preconception that measurable characteristics are ever predictive of mental health outcomes. These results imply that subsequent research needs to turn to psychological, behavioral, and environmental factors that may more accurately predict the variation in student mental health. It is recommended that universities adopt a more holistic approach to student well-being. This includes enhancing the visibility and accessibility of mental health support services, encouraging peer support systems to increase social connectedness, and institutional policies to address academic and non-academic stressors. These holistic approaches are needed to deal with students' mental health beyond the limitations of demographic categorizations.

Conflicts of Interest

The authors declare no conflicts of interest.

References

[1] Raza, K.K., Khan, M.A. and Khan, M.A. (2018) The Social Correlates of Anxiety Among University Students. *NICE Research Journal*, **11**, 67-78.

[2] Richardson, T., Elliott, P. and Roberts, R. (2017) Relationship between Loneliness and Mental Health in Students. *Journal of Public Mental Health*, **16**, 48-54. https://doi.org/10.1108/jpmh-03-2016-0013

[3] Johnson, C.M. (2020) The Social Determinants of Health and Student Mental Well-Being: A Critical Review. *Health Education Journal*, **79**, 682-694.

[4] Duffy, M.E., Twenge, J.M. and Joiner, T.E. (2019) Trends in Mood and Anxiety Symptoms and Suicide-Related Outcomes among U.S. Undergraduates, 2007-2018: Evidence from Two National Surveys. *Journal of Adolescent Health*, **65**, 590-598. https://doi.org/10.1016/j.jadohealth.2019.04.033

[5] Mofatteh, M. (2021) Risk Factors Associated with Stress, Anxiety, and Depression among University Undergraduate Students. *AIMS Public Health*, **8**, 36-65.

https://doi.org/10.3934/publichealth.2021004

[6] Mohamad, N.E., Sidik, S.M., Akhtari-Zavare, M. and Gani, N.A. (2021) The Prevalence Risk of Anxiety and Its Associated Factors among University Students in Malaysia: A National Cross-Sectional Study. *BMC Public Health*, **21**, Article No. 438. https://doi.org/10.1186/s12889-021-10440-5

[7] Noor, N.M. and Talib, M.A. (2018) Family Income, Perfectionism and Social Anxiety among Higher Education Students. *Global Journal Al-Thaqafah*, **8**, 161-168. https://doi.org/10.7187/gjatsi052019-13

[8] Mir, I.A., Ng, S.K., Mohd Jamali, M.N.Z., Jabbar, M.A. and Humayra, S. (2023) Determinants and Predictors of Mental Health during and after COVID-19 Lock-Down among University Students in Malaysia. *PLOS ONE*, **18**, e0280562. https://doi.org/10.1371/journal.pone.0280562

[9] Tran, A.G.T.T., Mintert, J.S. and Jew, G. (2018) Emotional Risks of Debt: The Role of Socioeconomic Status and Financial Threat in Young Adults. *Emerging Adulthood*, **6**, 350-359. https://doi.org/10.1177/2167696818762184

[10] Noor, N.M. and Talib, M.A. (2018) Family Income, Perfectionism and Social Anxiety among Higher Education Students. *Global Journal Al-Thaqafah*, **8**, 161-168. https://doi.org/10.7187/gjatsi052019-13

[11] Fang, S., Liu, C. and Zhang, L. (2023) The Influence of Family Factors on College Students' Self-Esteem: A Mediated Moderation Model. *Frontiers in Psychology*, **14**, Article ID: 1184932. https://doi.org/10.3389/fpsyg.2023.1184932

[12] Wu, J., Shen, H., Shen, Y., Liao, X. and Yu, X. (2024) The Influence of Family Socioeconomic Status on College Students' Mental Health Literacy: The Chain Mediating Effect of Parenting Styles and Interpersonal Relationships. *Frontiers in Psychology*, **15**, Article ID: 1477221. https://doi.org/10.3389/fpsyg.2024.1477221

[13] Irfan, M., Shahudin, F., Hooper, V.J., Akram, W. and Abdul Ghani, R.B. (2021) The Psychological Impact of Coronavirus on University Students and Its Socio-Economic Determinants in Malaysia. *Inquiry*: *The Journal of Health Care Organization*, *Provision*, *and Financing*, **58**, 1-7. https://doi.org/10.1177/00469580211056217

[14] Al-Amin, M., Rinky, F., Nizamul Hoque Bhuiyan, M., Yeasmin, R., Akter, T., Hoque, N., *et al.* (2025) Factors Influencing Mental Health Outcomes among University Students: A Cross-Sectional Study in Bangladesh. *BMJ Open*, **15**, e097745. https://doi.org/10.1136/bmjopen-2024-097745

[15] Richardson, T., Elliott, P. and Roberts, R. (2016) The Impact of Tuition Fees Amount on Mental Health over Time in British Students. *Journal of Public Health*, **39**, 412-418.

[16] Mašková, E. (2023) University Student Mental Health in a Post-Pandemic Era: A Systematic Review. *International Journal of Environmental Research and Public Health*, **20**, 2740.