

# Associations between Academic Performance and Mental Health and Well-Being among Cambodian University Students

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# Mental health is an important problem for your university students?

- Mental health crisis among university students has been pointed out. Are mental health problems widespread among university students in Cambodia?
- Studies in the U.S. and elsewhere have shown that mental health affects academic performance, but is there a similar association among Cambodian university students?
- I would like to present the mental health problems of Cambodian university students and its relation to their academic performance.

WHO surveys and other studies have shown that problems with the mental health of university students are widespread around the world.

- Auerbach RP, et al. Mental disorders among college students in the WHO World Mental Health Surveys

Psychol Med. 2016;46:2955-2970. doi:10.1017/S0033291716001665

Although mental health issues are an important factor when considering educational career achievement, college students have not received much attention on this issue.

This study found that one-fifth (20.3%) of college students had 12-month DSM-IV disorders. Anxiety disorder and mood disorder are common or important disorders.

The survey covered college students in 21 countries. Five of them are low or lower-middle income countries. Only Beijing, Shanghai, and Shenzhen in China are in Asia. China is no longer considered LMICs.

- The mental health problems of college students in LMICs in Asia do not seem to be clear.

- Auerbach RP, et al. The WHO World Mental Health Surveys International College Student Project: Prevalence and Distribution of Mental Disorders.

J Abnorm Psychol. 2018; 127: 623–638. doi:10.1037/abn0000362.

Roughly one-third of first-year students in 19 colleges across 8 countries who participated in a self-report survey (n=13,984 from Australia, Belgium, Germany, Mexico, Northern-Ireland, South-Africa, Spain, and United States). Major depressive disorder was the most common of the disorders examined across all countries combined (21.2% lifetime prevalence; 18.5% 12-month prevalence) followed by generalized anxiety disorder (18.6–16.7%).

It is interesting to note that among the socioeconomic backgrounds found to be associated with mental disorders in this study were being female and having no religious affiliation.

- The mental health problems of college students in LMICs in Asia do not seem to be clear.

- Evans-Lacko S, Thornicroft G: Viewpoint: WHO World Mental Health Surveys International College Student initiative: Implementation issues in low-and middle-income countries.  
Int J Methods Psychiatr Res. 2019;28:e1756.  
<https://doi.org/10.1002/mpr.1756>

Higher education is also widespread in LMICs. However, most college students in LMICs come from families whose parents have never attended college. Therefore, they expect their higher-educated children to elevate the socioeconomic positions of their entire families and relatives. This situation creates unique pressures for many college students in LMICs.

The SDGs include equality of access to higher education in target 4.3, and the realization of this target will ensure that university education is not limited to a few wealthy elites, but that more students from families with socioeconomic difficulties, and more women, will go on to higher education.

- Akhtar P et al.: Prevalence of depression among university students in low and middle income countries (LMICs): a systematic review and meta-analysis. Journal of Affective Disorders 2020; 274:911-919

Studies on depression among university students in LMICs were limited, and most were based on non-representative and small study samples. The overall prevalence of depressive symptoms was 24.4%.

- Dessauvagie AS: Mental Health of University Students in Southeastern Asia: A Systematic Review. Asia Pacific Journal of Public Health 2022; 34: 172–181

This review aims to determine the prevalence of mental health problems among university students in six ASEAN (Association of Southeast Asian Nations) countries (Cambodia, Laos, Malaysia, Myanmar, Thailand, and Vietnam) and to identify the determinants of mental health.

Median point prevalence was 29.4% for depression, 42.4% for anxiety, 16.4% for stress, and 13.9% for disordered eating. Current suicidality was present in 7% to 8% of students.

# Cambodia

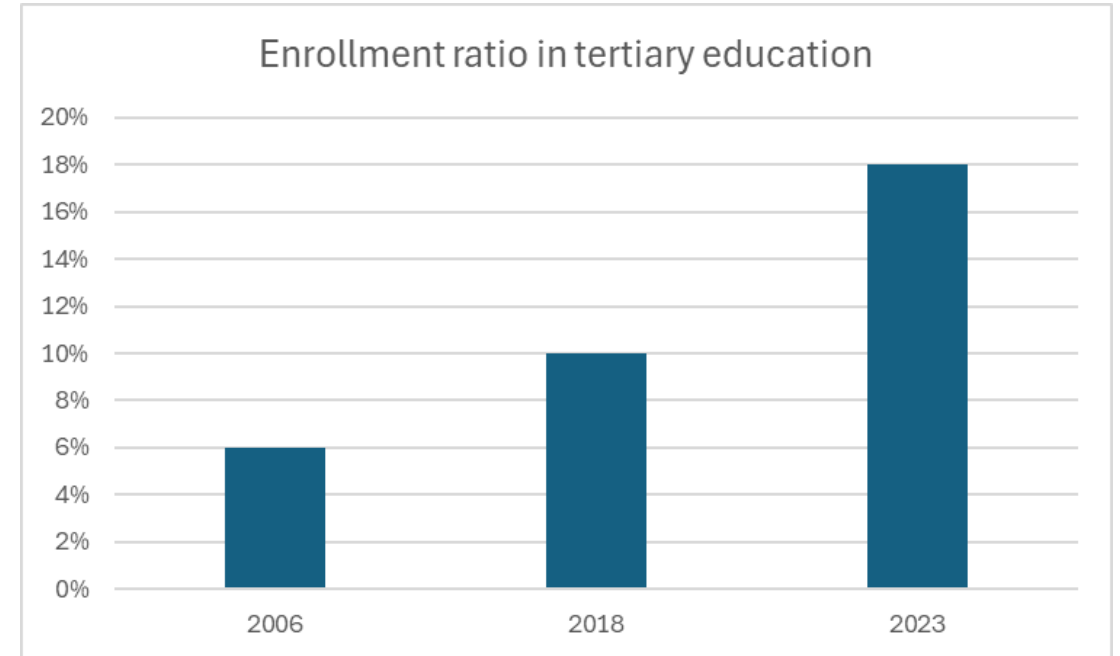


The cities circled by the red oval are the fields of the study. Phnom Penh is the capital and the largest city in Cambodia, and Battambang is the third largest city.

More than 95% of the population believes in Buddhism, 90% of the population is ethnic Khmer.

The Pol Pot Party took control of the country and imposed a proto-communist dictatorship between 1976 and 1979, killing an estimated 2 million people, including the educated classes.

- School enrollment, tertiary (% gross) in Cambodia was reported at 18% in 2023, according to the World Bank. Although university enrollment in Cambodia is limited to a small number, compared to 6% in 2006, this is a threefold increase.



- As Evans-Lacko et al. point out, the rapid increase in university enrollment has led to an increase in students from disadvantaged socioeconomic backgrounds, so we can assume that mental health problems are spreading among Cambodian university students due to the unique pressures of a developing country.



- Studies have shown that the association between mental health and academic performance varies according to high and low risk of lifestyle behaviors.  
(Chu T, et al. Association between mental health and academic performance among university undergraduates: The interacting role of lifestyle behaviors. Int J Methods Psychiatr Res. 2023;32:e1938)
- Because differences in mental health are assumed to be due to economic hardship, gender, ethnicity, college, region, and other attributes, as well as psychosocial factors such as sense of belonging, the association between mental health and academic performance may differ depending on these conditions.

Demographics	n=827
Age	(%)
18 years old	2.4
19 years old	9.1
20 years old	19.8
21 years old	22.0
22 years old	16.6
23 years old	12.5
24 years old	8.2
25 years old or older	9.4
Gender	
Male	31.2
Female	68.6
missing	0.2
Religion	
Buddhism	94.9
Christianity	3.5
Muslim	1.1
Other	0.1
None	0.4

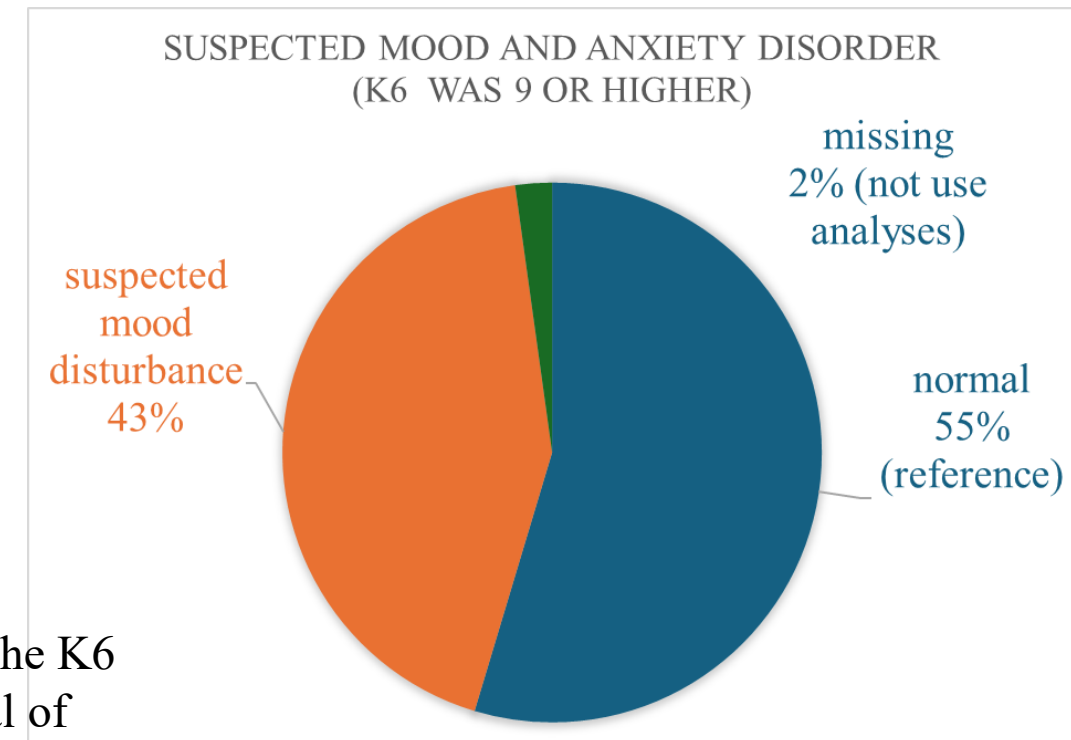
Financial difficulty in Family	(%)
Quite poor (1)	3.4
Not very well-off (2)	28.3
Neither well-off nor poor (moderate) (3)	66.5
Well-off (4)	1.6
Very well-off (5)	0.1
missing	0.1

Self-evaluated Academic Performance (%)	
Very poor	0.2
Poor	1.7
Fair	50.3
Good	45.9
Excellent	1.8

The K6, or Kessler-6, is a brief, self-administered questionnaire used to measure non-specific psychological distress.

During the past 30 days, about how often did you feel...	All of the time	Most of the time	Some of the time	A little of the time	None of the time
a. ...nervous?	1	2	3	4	5
b. ...hopeless?	1	2	3	4	5
c. ...restless or fidgety?	1	2	3	4	5
d. ...so depressed that nothing could cheer you up?	1	2	3	4	5
e. ...that everything was an effort?	1	2	3	4	5
f. ...worthless?	1	2	3	4	5

K6 (normal:  $\leq 8$  reference (0), suspected mood and anxiety disorder;  $\geq 9$  (1))



Furukawa T et al., (2008). The performance of the Japanese version of the K6 and K10 in the World Mental Health Survey Japan. International Journal of Methods in Psychiatric Research, 17, 152-158. doi:10.1002/mpr.257

# Dependent variable and independent variable

- Dependent variable: Self-evaluated academic achievement  
Reference (very poor, poor, fair) = 0  
Good achievement = 1
- Independent variable: K6  
Reference (normal) = 0  
Suspected mood disturbance = 1
- Confounding variable  
e.g. gender, financial difficulty, visit a religious facility, health behavior, human relationship.
- Analysis: Simple logistic regression

In this study, an odds ratio smaller than 1.0 indicates that the group with mental health dysfunction had a lower self-evaluation of academic performance than the group with normal mental health.

### Association between mental health and academic performance

	odds ratio	95% Confidence Interval
All participants	0.74	0.56-0.98
Gender		
Female	0.70	0.50-0.98
Male	0.94	0.56-1.59
Financial difficulty		
Poor	0.59	0.36-0.98
Moderate	0.83	0.59-1.17
Visit a religious facility		
1-2 visits a year or less	0.65	0.43-0.99
More than 3 visits a year	0.82	0.56-1.19
Eat fast food		
1 - 3 days a month or less	0.66	0.45-0.97
1 day per week or more	0.84	0.56-1.26
Physical activity		
0-3 days/ week	0.60	0.39-0.92
4days and more	0.86	0.60-1.24
People should always treat those around them with caution		
Agree	0.61	0.43-0.86
Disagree, neutral	1.02	0.64-1.63

# Conclusion and implication

- These results suggest that the impact of mental health on academic performance of university students varies depending on gender, economic difficulties, religious behavior, some health behaviors, and human relationship. Therefore, poor mental health does not simply lead to poor academic performance.
- Measures to improve the mental health of university students are important, but professional mental health services are scarce in LMICs such as Cambodia, thus improvement is not easy.
- However, the results of this study suggest that social measures may be possible to mitigate the impact of college students' mental health status on their grades, such as reducing economic disparities, educating students about health behaviors, and creating a college environment that enhances reliable relationships.

# Limitations

- The present analysis was conducted with the research questions in mind: Is the mental health status of college students related to their academic performance, and are these relationships different depending on psychosocial conditions and health behaviors?
- Therefore, many variables were not analyzed simultaneously. This point needs to be examined.

Thank you very much for your attention.