

Psychological wellbeing and stress coping strategies among university students enrolled in healthcare related programs during COVID-19 pandemic

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Background

The levels of depression and anxiety among healthcare students are consistently higher than the general population and age-matched peers. During the COVID-19 pandemic, healthcare students are greatly affected due to a prolonged period of school suspension and insufficient on-site clinical teaching.

Objectives

This study investigates:

- The psychological well-being and stress coping strategies adopted by healthcare students in Hong Kong during the COVID-19 pandemic.
- The relationship between psychological well-being and stress coping strategies.

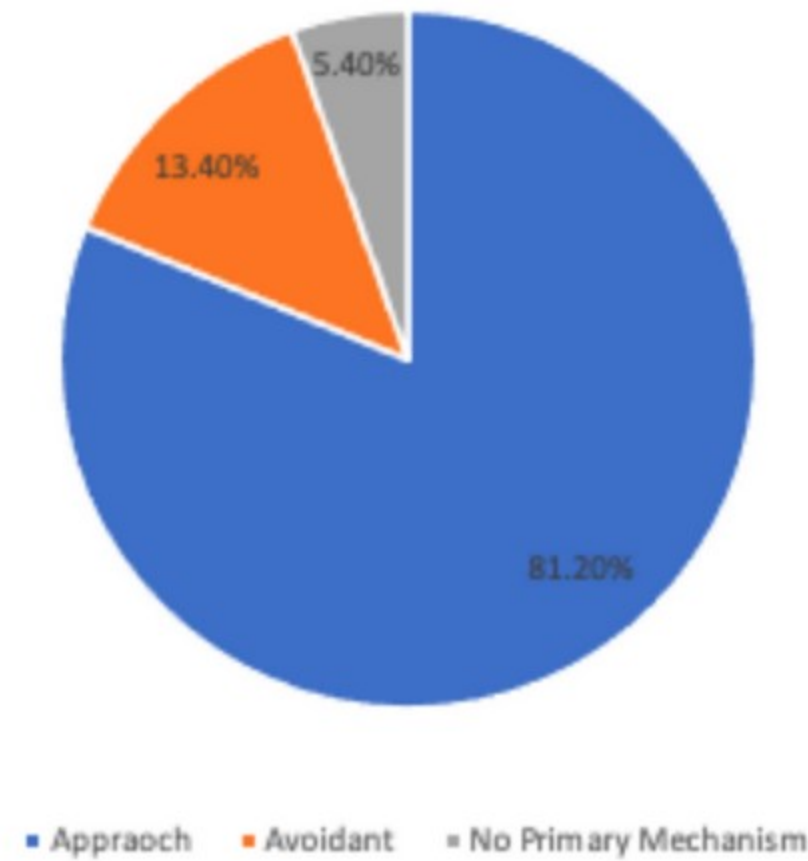
Methods

- A cross-sectional online survey was conducted between January and March 2021 on full-time undergraduate students who enrol in healthcare related programmes.
- A 70-item online survey was used to assess psychological well-being (Ryff Scale), coping strategies (brief Coping Orientation to Problems Experienced inventory, COPE scale) and demographic information of healthcare students. Both the Ryff Scale (18 items) and the brief COPE scale (28 items) have been validated in University students.
- The COPE scores were categorised to identify the primary coping strategies: 'Approach' indicates more active coping strategies, and 'avoidant' indicates more dysfunctional and maladaptive approach. In addition, the COPE problem-focused scores, COPE emotional-focused scores and COPE dysfunctional coping scores were calculated.

Results

- 202 full-time undergraduate students (71.3% female) from various healthcare related programmes (35.2% medical students, 35.6% nursing students) completed the online survey.
- Nursing students ($P=0.003$), respondents with no religious belief ($P=0.001$), lower academic confidence ($P<0.001$), a history of chronic diseases and/or psychological disorders ($P=0.007$), lower self-ratings on peer ($P<0.001$) and family relationship ($P=0.012$) during COVID-19 pandemic had a lower Ryff score compared to their counterparts, indicating a poorer psychological well-being.
- The primary coping mechanism for the majority of healthcare students is "approach" (81.2%).

Primary Coping Strategy Adopted By Healthcare Students (n=202)



- Medical students were more likely to adopt a more active stress coping strategy ("approach") coping strategy than healthcare students from other disciplines ($P<0.001$).
- Nursing students reported the lowest level of psychological well-being and highest proportion of adopting 'avoidant' coping strategies (26.4%) compared to other healthcare students involved in this survey.
- Respondents who adopted an "approach" coping strategy tended to have better psychological well-being (higher Ryff scores) than those who adopted an "avoidant" approach ($P<0.001$).

The mean Ryff scores in healthcare students with various stress coping strategies (n=202)

Primary Coping Strategy	N	Mean Ryff Score ¹ (18-90)	95%CI
All	202	63.8	61.7 - 64.9
Approach	164	65.9	64.8 - 66.9
Avoidant	27	53.6	50.3 - 56.8
No primary strategy	11	58.2	56.8 - 59.8

¹ higher score indicates better psychological wellbeing

Correlations of Ryff Scores with COPE sub-category scores and self-rated peer and family relationship

COPE Subtype score	Pearson Correlation coefficient with Ryff score	P-value
Problem-focused	0.269	<0.001
Emotion-focused	0.093	0.188
Dysfunctional	-0.532	0.001
Self-rating on peer relationship	0.234	0.001
Self-rating on family relationship	0.178	0.012

Conclusion and Recommendations

The findings of this study provide insight for educators to identify vulnerable groups among healthcare students. Adopting 'approach' as the primary coping mechanism and using problem-focused stress coping strategies appear to be associated with a better psychological wellbeing. Future studies should explore strategies to empower students to adopt problem-focused stress coping strategies in order to better prepare them for coping with stressful environments or possible pandemics in the future.