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Original Article

Association between Stress Depression Anxiety and Coping Styles among Indian University Students during COVID-19 Outbreak

Priscilla Das¹, Saravana Kumar², Ramasamy Chidambaram³

Introduction : Psychiatric illnesses such as Depression and Anxiety can have a substantial impact on one's mental health. Depression is the most common psychiatric condition diagnosed among students.

Objectives : To find out the association of factors which are linked to Stress, Depression, Anxiety and coping styles among Indian University students during COVID-19 outbreak.

Methods : A self-administered questionnaire consisting of socio-demographic, DASS-21 and Brief-COPE inventory were used.

Results : The study comprised a total of 201 University students ranging in age from 17 to 36 years old. Female students (n=150) were the most common responses, followed by male students (n=51). Depression, anxiety and stress correlated with active coping, planning, positive reframing, acceptance, humor, emotional support, instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, self-blame and religion.

Conclusion : Venting, behavioural disengagement and self-blame are all examples of maladaptive coping techniques that have a significant impact on University students' Stress, Anxiety and Depression levels. This research will provide a better understanding of the underlying influence of coping methods on Stress, Depression, and Anxiety among university students during the COVID-19 outbreak, enabling for early intervention and improved outcomes.

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Key words : Psychiatric disorders, Stress, Depression, Anxiety, Student, Coping styles.

The COVID-19 pandemic has been shown to have negative Psychological impacts on the populations^{1,2}. Depression and Anxiety, for example, can have a substantial impact on a person's overall health^{3,4}. According to previous studies, children with high levels of Depression and Anxiety have trouble in learning, memorising and achieving good grades^{5,6}. Problem-focused coping (active coping, planning, and the use of instrumental support), emotionally focused coping (emotional support, positive reframing and religion), Adaptive coping (acceptance, humour) and Maladaptive coping (self-distraction, denial, substance use, behavioural disengagement, venting, and self-blame) are all assessable⁷. Students with low psychosocial characteristics, in particular, are more prone to suffer emotional discomfort and engage in

Editor's Comment :

- The COVID-19 pandemic has been proven to have detrimental psychological effects among the population.
- Better coping styles can help to lessen depression, anxiety, and stress among the students during COVID-19 pandemic.
- Awareness on various coping styles which are associated with depression, anxiety and stress will give insight to overcome this COVID-19 outbreak situation more effectively among the students.

these maladaptive behaviours. Long-term student who were optimistic experienced reduced levels of melancholy and anxiety, as well as less study-related problems^{8,9}.

Despite the fact that college is the most enjoyable time of a person's life, they need work on their coping skills in order to overcome Depression and worry. The effectiveness of treatment will be reduced if depression and anxiety are left untreated and no effort is made to develop their overall coping mechanisms. There has been no research into the Stress, Depression, and Anxiety experienced by Malaysian university students during the COVID-19 outbreak in terms of coping mechanisms. The primary goal of the study is to determine how common stress, depression, and Anxiety are among University students, as well as their coping mechanisms and associated factors.

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METHODOLOGY

Objectives :

To find out the association of factors which are linked to Stress, Depression, Anxiety and coping styles among Indian university students during COVID-19 outbreak.

Materials and Methodology :

These are the list of questionnaires used in this study:

- (a) Socio-demographic questionnaires
- (b) Brief cope
- (d) DASS-21 questionnaire

Study design :

Cross-sectional studies.

Study duration :

Two years.

Inclusion criteria :

The participant is chosen based on four primary inclusion criteria. To participate, students must first be enrolled at a University. Second, the person must be at least eighteen years old. Participants in the study must also be able to converse in English. Fourth, the interviewee must be qualified to take part in the conversation.

Sampling method :

Universal sampling.

Data collection technique :

Students are given an online form with three sections: socio-demographic surveys, DASS questionnaires and brief-cope questionnaires. The completed forms were gathered and reviewed for the study.

Questionnaires :

Socio-demographic questionnaires :

Students' age, gender, race, religion, marital status, education level, occupation, socio-economic position, and family members will be assessed using socio-demographic questionnaires.

Brief COPE :

The Brief COPE questionnaire's 14 coping styles categories are grouped into 14 domains. On a scale of 2 to 8, coping styles were rated. The questionnaire has a good level of validity and reliability. To score scoring strategies, the two components on each scale will be averaged (all scales ranged from 2 to 8). Validity and reliability of the brief COPE questionnaire are satisfactory. The Brief COPE has high validity and

reliability among Malaysians in both English and Malay. The scale's internal consistency ranged from 0.25 to 1.00, and the Intraclass Correlation coefficient ranged from 0.05 to 1.00. From 0 to 0.53, the sensitivity was increased¹⁰.

RESULTS

The study comprised a total of 201 University students ranging in age from 17 to 36 years old. Female students (n=150) were the most common responses, followed by male students (n=51)(Table 1).

Table 1 — Summarises the socio-demographic profile of the students

	Fre- quency	Percen- tage(%)
Gender :		
Female	150	74.6
Male	51	25.4
Total	201	100
Religion :		
Buddhist	1	0.5
Christian	19	9.5
Hindu	166	82.6
Jain	1	0.5
Muslim	12	6
No religion	2	1
Total	201	100
Education level :		
Bachelor	185	92
Diploma	1	0.5
Foundation	9	4.5
Master	3	1.5
PhD	3	1.5
Total	201	100
Study Mode :		
Full-time	195	97
Part-time	6	3
Total	201	100
University/college :		
Private College	38	18.9
Private University	108	53.7
Public College	22	10.9
Public University	33	16.4
Total	201	100
AMET	1	0.5
Anna University	1	0.5
Annamalai University	21	10.5
Bharathiar University	1	0.5
Cuddalore Government Dental College	16	8
Indhiragandhi Dental College	1	0.5
Indira Gandhi Institute of Dental Science	74	36.8
KSR college	2	1
KSR Institute of Dental College Tiruchengodu	1	0.5
KSR Institute of Dental Science and Research	3	1.5
Madras Christian College	1	0.5
Mahatma Gandhi Medical College and Hospital	2	1
Mahatma Gandhi Medical College and Research Institute	4	2.0
MGR University	9	4.5
Prist University Pondicherry	1	0.5
Puducherry	5	2.5

	Fre- quency	Perce- ntage(%)
Rajah Muthiah Dental College	11	5.5
Rajah Muthiah Dental College and Hospital	3	1.5
Rajah Muthiah Dental College, Annamalai University	1	0.5
Shri Krishnaswamy College for Women	1	0.5
Sies College of Arts Science and Commerce	1	0.5
Sri Balaji Vidyapeeth	19	9.5
Sri Ramachandra University	1	0.5
SRM	1	0.5
SSN College of Engineering	1	0.5
Tamil Nadu	2	1
Thanjavur	1	0.5
Vels University	1	0.5
Total	201	100
Rural	52	25.9
Urban	136	67.7
Total	201	100
Not Working	192	95.5
Working	9	4.5
Total	201	100
Marital status :		
Married	2	1
Single	199	99
Total	201	100

Depression correlated with active coping ($r=0.272$, $p=0.000$), planning (0.349 , $p=0.000$), positive reframing ($r=0.282$, $p=0.000$), acceptance ($r=0.399$, $p=0.000$), humor ($r=0.322$, $p=0.000$), emotional support ($r=0.262$, $p=0.000$), instrumental support ($r=0.204$, $p=0.004$), self-distraction ($r=0.349$, $p=0.000$), denial ($r=0.309$, $p=0.000$), venting ($r=0.448$, $p=0.000$), substance use ($r=0.149$, $p=0.035$), behavioral disengagement ($r=0.491$, $p=0.000$), self-blame ($r=0.509$, $p=0.000$) and religion ($r=0.253$, $p=0.000$).

Anxiety correlated with active coping ($r=0.284$, $p=0.000$), planning (0.368 , $p=0.000$), positive reframing ($r=0.269$, $p=0.000$), acceptance ($r=0.414$, $p=0.000$), humor ($r=0.361$, $p=0.000$), emotional support ($r=0.281$, $p=0.000$), instrumental support ($r=0.240$, $p=0.001$), self-distraction ($r=0.352$, $p=0.000$), denial ($r=0.406$, $p=0.000$), venting ($r=0.454$, $p=0.000$), substance use ($r=0.163$, $p=0.021$), behavioral disengagement ($r=0.456$, $p=0.000$), self-blame ($r=0.543$, $p=0.000$) and religion ($r=0.250$, $p=0.000$).

Stress correlated with active coping ($r=0.312$, $p=0.000$), planning (0.415 , $p=0.000$), positive reframing ($r=0.303$, $p=0.000$), acceptance ($r=0.422$, $p=0.000$), humor ($r=0.359$, $p=0.000$), emotional support ($r=0.308$, $p=0.000$), instrumental support ($r=0.269$, $p=0.000$), self-distraction ($r=0.411$, $p=0.000$), denial ($r=0.375$, $p=0.000$), venting ($r=0.479$, $p=0.000$), substance use ($r=0.143$, $p=0.043$), behavioral disengagement ($r=0.483$, $p=0.000$), self-blame ($r=0.570$, $p=0.000$) and religion ($r=0.213$, $p=0.002$).

DISCUSSION

According to a poll of Undergraduate students at Malaysian Public Universities, 64.6 percent of first-year students suffer from anxiety, 32.1 percent from depression, and 29.2 percent from Stress. Four factors have been identified as contributing to Depression: gender, age, educational major, and employment. Anxiety is associated to the mother's education major, but stress is linked to her income and work. Depression, Anxiety and Stress have all been linked to parental education. Students' academic performance is commonly harmed by Psychological diseases, and special care should be provided to them in order to improve their overall mental health. Depression, Anxiety and Stress can all be alleviated with better coping techniques¹¹.

Depression, Anxiety and Stress were shown to be more prevalent in students under the age of 19. (DAS). The DAS level decreased as people got older. Female students and those who resided in the dorms had a high rate of morbidity. Due to their analytical mind and introversion behaviour, students with a higher degree of DAS had lower physical, mental, social and spiritual scores but a higher emotional score. Students who live in joint households had a lower risk of Depression (23.6 percent) than students who live in nuclear homes because they find it harder to communicate their opinions with their parents (76.4 percent)¹².

Academic overload, such as test schedules, was a cause of Stress for students, with 69.7% expressing Depression and 94.4 percent expressing Anxiety. Due to their rigorous curriculum, students rarely engage in recreational activities, according to the report. It's worth mentioning that students in higher socio-economic categories were more depressed than those in lower socio-economic groups. In order to resolve the problem, the psychological component of the problem should be monitored in the University's health centre, according to the study. To aid in the development of students, the mentorship programme should be improved¹².

Students utilised adaptive coping techniques such as religious coping (score (SD): 6.02 (1.65)); positive reframing (score (SD): 5.75 (1.62)); planning (score (SD): 5.66 (1.63)); active coping (score (SD): 5.62 (1.64), according to another study. Self-distraction was common among the students with a score (SD) of 5.51 (1.55), venting was popular with a score (SD) of 4.75 (1.60) and self-blame was common with a score (SD) of 4.62 (1.67). Male students are more likely than female students to be depressed. Students aged 22 were found to be more likely to suffer from Depression¹¹.

Religion, ranting, humour, denial, substance abuse, and behavioural disengagement have all been related to Depression as coping techniques. Meanwhile, humour, substance abuse, and behavioural disengagement have all been linked to Anxiety. Stress is associated to instrumental support, ranting, humour, denial, substance addiction and behavioural disengagement coping strategies. Students entering their first semester face various challenges. The unfamiliar environment, as well as academic pressures such as tests, final exams, and assignments, could jeopardise their ability to cope with their psychological challenges. Early detection and intervention among students, according to the research, can help students manage with depression, anxiety, and stress by teaching them suitable coping skills¹¹. This research backs up the current study's findings, which show that depression highly correlated with self-blame, behavioral disengagement, and venting.

Meanwhile the anxiety and stress highly associated with behavioral disengagement and self-blame in the current study. Students have indicated that University life is more stressful than other phases of their lives. In research, effective coping mechanisms have been demonstrated to reduce stress levels among university Students¹³. Only a few research involving Malaysian university Students have been conducted^{14,15}. while the majority of investigations have been conducted on western populations¹³. Stress levels among University students are influenced by a variety of factors, including cultural variations and age groups. Surviving throughout the study period is difficult and students may get more stressed as a result¹⁶. As students graduate, their Stress level is greatly influenced by their work prospects¹⁴, as well as looking for internships and jobs¹⁵. To help students cope with Stress, extracurricular activities such as athletics should be promoted at the institution¹³.

Research of 376 Medical and Medical sciences Students was done by the International Medicine School, Management and Science University. In 2009, the data was gathered in the middle of the semester. 46.3 percent of students indicated they were under too much or some Stress, followed by 47.6 percent who said they were under a little amount of Stress, and only 6.1 percent who claimed they were not under any Stress. When compared to non-smokers, smoking was found to be a significant factor in Stress (71.4%) (OR = 3.2, 95 percent confidence interval 1.5-7.0, P = 0.002). (43,7%)¹⁷.

Planning, acceptance and positive reframing are all part of active coping, which entails taking action to

ease a stressful situation. Among the avoidant strategies include denial, behavioural disengagement, ranting and humour coping techniques⁷. In the Klang Valley, the role of mindfulness as a mediator in Malaysian University Students' academic stress and self-regulation was investigated. Exams and faculty work were found to be the most common sources of student academic Stress in the survey. Controlling negative emotions, attitudes and behaviours might help students improve their academic rankings by increasing general awareness¹⁸. Lecturers at Universities, career counselling centres, and administrators all have a part in reducing student stress. Throughout the academic year, workshops on how to cope with stress should be held, and University Counsellors should take a more proactive approach to addressing concerns. These techniques may aid students in improving their academic performance by lowering the negative impacts of stress, such as bad health¹⁷.

CONCLUSION

Venting, behavioural disengagement and self-blame are all examples of maladaptive coping techniques that have a significant impact on University Students' stress, Anxiety and Depression levels. This study provide a better knowledge of the role of coping methods, stress, Depression and Anxiety among University Students, enabling for early intervention and improvement of overall Mental Health problems.

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