

Stress and coping of college students amid the COVID-19 pandemic: An exploration using Q-methodology



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Abstract

Background: During the COVID-19 pandemic, college students have experienced sudden changes in their social and educational environment due to campus shutdowns, sudden transitions to online learning, and social distancing measures.

Objective: This exploratory study was conducted to examine how the COVID-19 pandemic impacted the stress and coping strategies of college students.

Methodology: Using Q methodology, data were collected from 44 undergraduate students at a rural, midwestern university in the United States. Participants individually ranked 62 subjective statements from highest agreement to highest disagreement.

Results: The analyses indicated that participants were divided into two factors (groups) according to their stress and coping styles. Participants with positive attitudes during the pandemic employed adaptive coping skills such as acceptance, positive reframing, and emotional/social support against the stress of the pandemic. In contrast, those with negative attitudes emphasized their academic stress rather than coping.

Conclusions: Study findings suggest that college students have different ways of coping with the stress of the pandemic. To mitigate this stress as COVID-19 transitions, colleges should consider tailored support programs and resources that reflect the divergent coping styles of their students rather than rely on universal solutions for everyone.

Keywords: *stress, coping, Q-methodology, higher education, student attitudes, undergraduate*

1. INTRODUCTION

The coronavirus disease (COVID-19) pandemic forced the rapid shut down of college campuses in March 2020, negatively influencing the lives of college students in many areas. Academic stress, financial hardships, sleep quality, and resilience are common topics studied during the COVID-19 pandemic.¹⁻³ However, few studies have explored the subjective opinions of college students about pandemic-related coping strategies and influences on academic performance. In this study, the academic stress, coping skills, and psychological hardships of undergraduate students during the COVID-19 pandemic were explored using Q methodology (hereafter referred to as Q for brevity), a novel research methodology developed to learn about participants' subjective opinions about phenomena.⁴ The objective of the study was to identify, categorize, and describe the opinions of college students regarding their stresses, coping skills, and academic needs under the COVID-19 pandemic.

Previous studies indicated that feelings of loneliness, anxiety, and depression related to the pandemic became more prevalent among college students than they did for the general population.⁵⁻⁷ During the COVID-19 pandemic, college students were more vulnerable to those psychological impacts because they were frequently nervous or upset about the effects of COVID-19 on their academics and events that were not progressing as anticipated.⁸ Many studies revealed that mandatory stay-at-home and lockdown orders might produce significant fatigue, anxiety, acute stress disorder, depressive symptoms, and/

or posttraumatic stress disorder among college students.⁹⁻¹¹ In particular, previous studies have reported that this population is more prone to increased loneliness during the COVID-19 pandemic because they lost valuable opportunities to meet friends in college and strengthen academic connections.^{7,12-13} Loneliness has been associated with a high risk of mental health problems such as stress, depression, anxiety, suicidal thoughts, and physical health problems.^{7,14-15} Furthermore, college students feel greater psychological stress due to this pandemic's unexpected and disruptive impact on their academic performance and career paths. For instance, laboratory activities and clinical placements were canceled or modified due to the COVID-19 lockdown.^{8,16} The pandemic also created instability in students' present status of employment and finances, leading to the loss of jobs or a reduction in working hours to pay for their tuition.¹⁵ In addition, concerns about families and friends catching the virus, as well as a fear of contracting it themselves, added to their psychological stress.⁸

The forced shut down of college campuses across the country and the sudden shift to remote learning due to the COVID-19 pandemic also caused intense academic stress on students. Sources of this stress include lack of familiarity with remote learning, changes in the quality of instruction, and concern about their academic performance.¹⁷ Though there were already high trends for online education before the pandemic, concerns about their education are not solely due to a change in learning formats but the forced sudden change in education without prepara-

tion. Hodges and colleagues² differentiated online teaching from emergency remote teaching, emphasizing that emergency remote teaching is a temporary shift of instructional delivery mode due to unexpected situations, while online learning is planned and designed from the beginning. Among students unprepared for movement to online learning, the pandemic showed that digital inequalities such as broadband access, technology ownership, and shared use of devices were substantially associated with the remote learning ability of students.³ Many educators were not prepared for the transition from classroom-based education to an online course.¹⁷ In the context of learning mode change, one of the primary concerns for students in higher education is academic stress relating to the success of their academic achievement in this new learning environment.¹⁸ In addition, during the COVID-19 pandemic, most colleges closed their campuses, forcing students to go back to their homes. Still, some students did not have a home to go to, or perhaps their home environment was abusive. These situations may have impeded student academic performance.¹⁹ However, the same stressors due to certain events can be experienced dissimilarly for different people depending on their personal appraisal or construct of the events.²⁰

Social support, personal resilience, and coping ability have been identified as protective factors against adverse events and stressful conditions.²¹⁻²² The role of social support has been recognized in reducing psychological distress among college students.²³ During the COVID-19 pandemic, college students with active coping

skills, resilience, and social support had less loneliness and psychological problems.¹³ Ye and colleagues²⁴ found that COVID-19-related stressful events were directly linked to greater levels of acute stress disorder symptoms, which might be moderated by resilience, adaptive coping, and social support. However, there have been few studies about what coping strategies college students are engaging in during the pandemic. Furthermore, research on college students found that less than half of the participants could cope adequately with the stress of the COVID-19 pandemic.²⁵ However, there has been little research on the subjective opinions of college students about coping strategies during the pandemic. Considering all these factors, the current study was designed to explore and describe college student participants' subjective views of their academic needs, psychological stress, and coping strategies related to the COVID-19 pandemic.

2.METHODS

Q Methodology

Q methodology was originally created by William Stephenson in 1935 to study participants' subjective viewpoints, attitudes, and values in an objective way through a factor analysis using specialized software such as Ken-Q. It is a means of scientifically studying subjectivity such that the analyses allow the researcher to categorize the differences in their subjective perceptions and classify them into factors (or groups) according to the similarities in their thoughts, attitudes, and values about a phenomenon as represented by their individual Q sorts. Each Q sort represents a

snapshot of the individual's view about the topic.²⁶ The sample size is not the number of participants in a Q study. The sample size is represented by the number of items in the Q sample. The number of participants (P set) can be small. Although a P set of 40 to 60 has been suggested as a general guideline,²⁶⁻²⁸ Q studies with substantially fewer participants can be effective for finding patterns or types of participant views regarding a phenomenon.²⁹⁻³¹ Identifying the types of perception among participants may provide essential data for the development of effective intervention plans to address the target issue.³² Recently more studies using Q methodology have been published in social and health science fields.^{4, 33-38}

Ethical Considerations

This exploratory study was approved by the Institutional Review Board (IRB) from a rural, midwestern university in the United States (IRB approval number 1740736, April 2021). The following procedures were used when participants were interested in the study. First, the study was announced through campus listservs. For this study, any undergraduate student aged 18 years or older was eligible. If potential participants were interested in the study, they signed the consent through Qualtrics. Then, the key researcher sent two documents to the participant: a questionnaire in a Word file and a Q-sort in an Excel file, along with instructions for Q sorting. Due to the nature of the Q methodology, which requires simultaneous administration of the questionnaire and sorting grid, an online survey tool was not used. Participation in the study was voluntary and the

information that participants provided was kept confidential. The consent form included all study-related information, such as protocols for protecting confidentiality. Once participants completed the questionnaire and Q sorting, they received a \$5 Amazon e-gift card as an incentive.

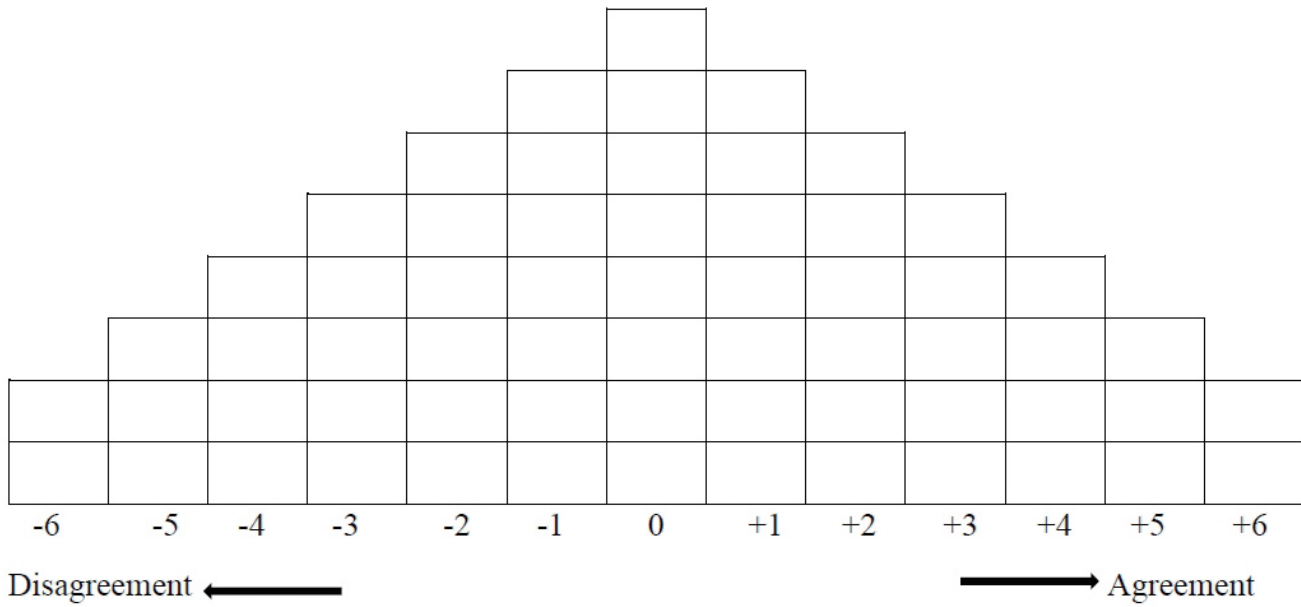
Participants

Data were collected from April to September in 2021 from 44 undergraduate students. Participants were asked to sign the consent if they agreed to participate, followed by completing a questionnaire about their demographic information such as age, gender, ethnicity, and class rank. Participants were then asked to sort the Q sample (62 subjective statements) into the Q sorting grid (see Figure 1).

Development of the Q Sample

This study employed Q methodology to understand the impact of the COVID-19 pandemic on college students' stress and coping. Q is useful for understanding people's subjective views or a pattern of thinking about a phenomenon.^{4,39} To create the initial draft of the Q sample, various sources were used, including literature reviews searching stress, coping skills, and COVID-19 related articles as keywords; a verified scale (i.e., Brief COPE); and college students' lived experiences.⁴⁰ Input regarding the construction, clarity, and opinion range of subjective statements was obtained from a Q methodology expert at Yonsei University. Regarding the number of statements, 40 to 80 statements²⁸ are reasonable when considering time to sort the statements and reliabil-

Figure 1. Q-sort grid (normal distribution curve) used by participants to rank statements according to their level of agreement. Ranks between -6 and -4 were characterized as “high disagreement.” Ranks between -3 and +3 were categorized as “neutral.” Ranks between +4 and +6 were characterized as “high agreement.”



ity concerns of the results²⁶ The final Q sample should be ‘broadly representative’ of the related opinion area. After removing statements that were repeated or not relevant to this study, the final 62 subjective statements were used to discover college students’ viewpoints about stress and coping during the COVID-19 pandemic.

Data Collection and Analysis

Participants were involved in the data collection procedure, called Q sorting. This involved ranking a set of pre-defined items (the Q sample) in a fixed normally distributed grid (Q grid) based on their levels of disagreement and agreement about each statement. Completing the procedure required each participant to

individually arrange the 62 items in the illustrated distribution (see Figure 1), ranking from -6 (high disagreement) through ‘zero’ (neutral) to +6 (high agreement).

Once participants completed the Q sorting, the data were analyzed using Ken-Q Analysis (<https://shawnbanasick.github.io/ken-q-analysis/>), an open-source software program that creates inter-correlations between the Q-sorts.⁴¹ In the Ken-Q software program, if participants ranked the Q-sort statements in a similar way, they loaded on the same factor. In this study, centroid factor analysis was used to obtain an initial estimate of possible factors and selected interpretable Q factors. The varimax method of orthogonal rotation was used.³⁰ As a result of the distinguishing and

consensus statements, differences and similarities between two factors could be interpreted (see Table 2, 3, and 4 in which asterisk (**)) indicates significance at $P < .01$).⁴²⁻⁴³

The interpretations of the factors provide a holistic explanation of the viewpoints that the participants in the study hold about the topic under investigation.⁴⁴ There are not reliability challenges in Q. However, when a factor is shared by at least 4-5 sorts, the reliability (having to do with the composite or representative Q sort for that view) is deemed very high (>95%).^{26,45} It is that composite Q sort that is used to identify the views, distinguishing statements among the views, and consensus across the views. Validity is also not an issue in the Q sorting process, since there is no reference for someone's internal viewpoint.^{26, 46-47}

3.RESULTS

A total of 44 undergraduate students participated in the study. The majority of the participants in this study were white (84.1%), and female (79.5%) with an average age of 21.7 (SD: 4.1). More than half (54.6%) were juniors and seniors. Most (52.3%) lived at home with others, while 22.7% lived in dormitories, and 6.8% split their living between home and a dormitory. A minority (18.2%) lived alone. At the time of this study, class delivery modes were diverse with 25.0% reporting all in-person, 45.5% some in-person and some online, and 29.5% all online. Regarding academic performance, 65.9% said their GPA had not changed during COVID-19, while 25.0% decreased and 9.1% increased. Regarding

the COVID-19 pandemic, 23.0% had COVID themselves, and 95.5% had not experienced any family members' death due to COVID. However, 84.1% indicated that their stress levels have increased/greatly increased due to COVID, while 15.9% said the pandemic has had no impact on their stress (see Table 1).

The resulting factors represented participants' subjective views of their stress and coping skills under the COVID-19 pandemic. Factor interpretation was based on the statements in the most agreeing statements (+4, +5, and +6) and most disagreeing statements (-4, -5, and -6). Tables 2, 3, and 4 list the score received by each statement for each factor.

Factor 1: Group with positive anticipation and positive coping strategies

Half of the participants (N=22) are represented by (based on the factor matrices) Factor 1. The top-ranked statements that characterize Factor 1 included common underlying themes of positive anticipation and positive coping during the COVID-19 pandemic. This group shared positive anticipation, such as "I can't wait to get out of the house and do normal, fun things" (+6**). In this group, three statements explicitly referenced positive coping strategies such as, "I've been accepting the reality of the fact that the COVID-19 pandemic has happened and have adapted my life to new routines like wearing masks and social distancing" (+5**), "I've been looking for some good in what is happening during the COVID-19 pandemic" (+4**), and "For emotional support, I find ways to safely spend time with a small group of family and friends in person and this makes

Table 1. Demographic information (N=44).

Variables		N	%
Age (Years)	Average 21.7 (SD 4.1)		
Gender	Female	35	79.5
	Male	8	18.2
	Other	1	2.3
Ethnicity	White	37	84.1
	Black or African American	3	6.8
	Asian	1	2.3
	Multiple races	2	4.5
	Other	1	2.3
Class Rank	Junior and senior	25	54.6
	Freshman and sophomore	19	45.4
Living Arrangement	Home with family and/or friends	23	52.3
	Dormitory	10	22.7
	Both home and dormitory	3	6.8
	Other (e.g., alone in apartment)	8	18.2
Grade Point Average	Significant decrease and decrease	11	25.0
	No change	29	65.9
	Increase	4	9.1
	Significant increase	0	0.0
Class Delivery Mode	All in-person	11	25.0
	In-person and online	20	45.5
	All online	13	29.5
Stress	No change	7	15.9
	Increase	22	50.0
	Significant increase	15	34.1

Table 2. Common statements of agreement for participants with positive (factor 1) and negative (factor 2) attitudes during the COVID-19 pandemic.

Statement Number	Statement	Rank
Factor 1: Positive Attitudes (N=22)		
24.	I can't wait to get out of the house and do normal, fun things after the COVID-19 pandemic.	+6**
35.	I've been accepting the reality of the fact that the COVID-19 pandemic has happened and have adapted my life to new routines like wearing masks and social distancing.	+5**
39.	I've been looking for some good in what is happening during the COVID-19 pandemic.	+4**
36.	For emotional support, I find ways to safely spend time with a small group of friends/family in person and this makes me feel better about the unknowns of COVID.	+4**
Factor 2: Negative Attitudes (N=21)		
2.	Online classes are stressful because paying attention during virtual meetings (e.g., Zoom, WebEx) is harder than attending in-person courses.	+6**
6.	I find it hard to stay motivated when attending classes and not being in a physical classroom.	+5**
4.	Separating schoolwork from personal space and keeping school/life balance during the pandemic is hard.	+4**
16.	The pandemic makes me feel out of control of my future especially since it's been over a year of quarantine.	+4**
3.	I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice.	+4**
<p><i>Note.</i> Agreement was categorized as Q-sort ranks between +4 and +6. Common statements were expressed by participants who loaded on the same factor with an eigenvalue of greater than 1. ** p < .01. The level of significance was determined at $f > .29$: above with 95% confidence interval ($1.96 \times 1/\sqrt{44}$), therefore one participant with $f < .29$ was removed from the analysis.</p>		

Table 3. Common statements of disagreement for participants with positive (factor 1) and negative (factor 2) attitudes during the COVID-19 pandemic.

Statement Number	Statement	Rank
Factor 1: Positive Attitudes (N=22)		
26.	I lost my sense of taste and do not enjoy food anymore.	-6**
48.	I have no concerns for COVID-19, because it's no different from other health conditions like the flu.	-5**
25.	I am no longer the active and social person that I was before the COVID-19 pandemic, and I am worried this will never change.	-5**
3.	I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice.	-5**
51.	I tried at the beginning, but the long-standing nature of the COVID-19 pandemic has caused me to give up all attempts at coping.	-4**
12.	I am concerned about my long-term job/career prospects due to the COVID pandemic.	-4**
Factor 2: Negative Attitudes (N=21)		
13.	I am thinking about changing my job/career goals due to the COVID-19 pandemic (e.g., considering a new major or minor).	-6**
48.	I have no concerns for COVID-19, because it's no different from other health conditions like the flu.	-6**
26.	I lost my sense of taste and do not enjoy food anymore.	-5**
47.	I am not too worried about COVID, because it will be forgotten about soon and we can get back to normal life.	-5**
31.	I frequently try to learn new information about COVID-19 through various social media sites and the Internet.	-4**
33.	To help me cope with COVID-19, I try to get advice or help from other people (family and friends) about what to do (technology support, transportation, food/groceries, health/medical appointments).	-4**
50.	To let my unpleasant feelings escape, I've been venting to my family and friends a lot.	-4**

Note. Disagreement was categorized as Q-sort ranks between -6 and -4. Common statements were expressed by participants who loaded on the same factor with an eigenvalue of greater than 1. ** $p < .01$. The level of significance was determined at $f > .29$: above with 95% confidence interval ($1.96 \times 1/\sqrt{44}$), therefore, one participant with $f < .29$ was removed from the analysis.

Table 4. *Opposing statements for participants with positive (factor 1) and negative (factor 2) attitudes during the COVID-19 pandemic.*

Statement Number	Statement	Factor 1 Positive (N=22)	Factor 2 Negative (N=21)	Rank Difference
3.	I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice.	-5**	+4**	9
39.	I've been looking for some good in what is happening during the COVID-19 pandemic.	+4**	-1**	5
6.	I find it hard to stay motivated when attending classes and not being in a physical classroom.	-1**	+5**	6
16.	The pandemic makes me feel out of control of my future especially since it's been over a year of quarantine.	-2**	+4**	6

Note. Opposing statements were categorized as a Q-sort rank difference of 5 or greater. ** p < .01. The level of significance was determined at $f > .29$: above with 95% confidence interval ($1.96 \times 1/\sqrt{44}$), therefore one participant with $f < .29$ was removed from the analysis.

me feel better about the unknowns of COVID” (+4**). On the contrary, this group shared disagreement for statements such as “I am no longer the active and social person that I was before the COVID-19 pandemic, and I am worried this will never change” (-5**) and “I tried at the beginning, but the long-standing nature of the COVID-19 pandemic has caused me to give up all attempts at coping” (-4**). For academic or job stress, this group disagreed with statements such as “I am stressed that my grades this semester are not up to my usual standards, and this will keep me from getting into the career of my choice” (-5**) and “I am concerned about my long-term job/career prospects due to the COVID pandemic” (-4**).

Factor 2: Group with negative anticipation and academic stress

Nearly half (N=21 or 47.7%) of participants loaded significantly on Factor 2. The top-ranked statements that characterize Factor 2 included common themes of negative anticipation and academic stress. This group shared negative feelings such as “The pandemic makes me feel out of control of my future especially since it’s been over a year of quarantine” (+4**). In this group, four statements explicitly referenced academic stress such as “Online classes are stressful because paying attention during virtual meetings (e.g., Zoom, WebEx) is harder than attending in-person courses” (+6**), “I find it hard to stay motivated when attending classes and not being in a physi-

cal classroom” (+5**), “Separating schoolwork from personal space and keeping school/life balance during the pandemic is hard” (+4**), and “I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice” (+4**). At the same time, this group shared disagreement for academic-related statements such as, “I am thinking about changing my job/career goals due to the COVID-19 pandemic (e.g., considering a new major or minor)” (-6**).

Commonly Shared Opinions by Factors

Consensus statements are useful to measure opinions agreed or disagreed across factors (viewpoints). Both groups had shared opinions about COVID-19 by disagreeing with statements such as “I have no concerns for COVID-19, because it’s not different from other health conditions like the flu” (Factor 1 = -5**, Factor 2 = -6**). The Factor 2 group particularly disagreed with the statement “I am not too worried about COVID, because it will be forgotten about soon and we can get back to normal life” (-4**). Additionally, both groups commonly disagreed with COVID-19 related statements such as “I lost my sense of taste and do not enjoy food anymore” (Factor 1 = -6**, Factor 2 = -5**). The disagreeing statements with at least five rank differences between Factor 1 and Factor 2 were “I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice” (difference = 9), “I’ve been looking for some good in what is happening during the COVID-19 pandemic” (difference = 5), “I find it hard to stay motivated

when attending online classes and not being in a physical classroom” (difference = 6), and “The pandemic makes me feel out of control of my future especially since it’s been over a year of quarantine” (difference = 6).

4.DISCUSSION

Using Q methodology, this study examined how the COVID-19 pandemic influences stress and coping skills of college students. The study findings revealed two shared viewpoints on stress and coping strategies among participants. The first group (Factor 1) shared a common theme of positive expectation such as “I can’t wait to get out of the house and do normal, fun things after the COVID-19 pandemic.” Their optimistic perspective was addressed by their positive coping through *acceptance* such as “I’ve been accepting the reality of the fact that the COVID-19 pandemic has happened and have adapted my life to new routines like wearing masks and social distancing,” *positive reframing* such as “I’ve been looking for some good in what is happening during the COVID-19 pandemic,” and *emotional/social support* such as “For emotional support, I find ways to safely spend time with a small group of family and friends in person and this makes me feel better about the unknowns of COVID.” These findings support previous studies that expecting positive events/outcomes during the COVID-19 pandemic brings out positive emotion, which is also connected with adaptive response against the stress of the pandemic.⁴⁸⁻⁴⁹ Tanner et al. explained that negative thoughts about stress might be replaced with positive thoughts about the future, which promotes success in recovery from stress.⁵⁰

Meanwhile, the second group (Factor 2) shared common primary themes of academic related stress such as “Online classes are stressful because paying attention during virtual meetings (e.g., Zoom, WebEx) is harder than attending in-person courses,” “I find it hard to stay motivated when attending online classes and not being in a physical classroom,” “Separating schoolwork from personal space and keeping school/life balance during the pandemic is hard,” and “I am stressed that my grades this semester are not up to my usual standards and this will keep me from getting into the career of my choice.” This finding indicates that the forced sudden shift to online learning mode without preparations seemed to be the cause of significant academic stressors to the Factor 2 group during the COVID-19 pandemic. These findings support previous studies that one of the primary concerns for students in higher education is academic stress related to the ability to adapt to a new learning environment.¹⁸ This group also shared negative anticipations such as “The pandemic makes me feel out of control of my future especially since it’s been over a year of quarantine.” Negative attitudes are related to higher concurrent negative emotions, which are also linked with repetitive thinking about stressors.⁴⁸ Accordingly, in the stress and coping context, the study findings suggest that participants with negative attitudes tended to put more weight on stress than coping strategies, indicating that this group does not deal with their academic stress properly.

However, both groups shared common concerns for COVID-19 by shared disagreement with statements such as “I have no concerns for COVID-19,

because it’s not different from other health conditions like the flu.” In addition, the second group showed disagreement with the statement such as “I am not too worried about COVID, because it will be forgotten about soon and we can get back to normal life,” which is another indicator showing the negative anticipation of this group. Interestingly, however, both groups commonly denied signs of having had COVID-19 such as “I lost my sense of taste and do not enjoy food anymore.” In this study, half of the participants indicated that they were able to cope adequately with the stress during the COVID-19 pandemic, which coincides with the statistics of the study conducted by Ye and colleagues.²⁴

5. IMPLICATIONS AND CONCLUSION

This is the first study to use Q methodology to explore stress and coping among undergraduate students during the COVID-19 pandemic. During the pandemic, long-lasting measures such as lockdown and stay-at-home orders disrupted normal life and brought negative psychological effects, such as anxiety and depression, which were associated with a decrease in academic achievements among college students.⁵¹ However, the pandemic enabled educators to adapt learning environments under emergency situations, including social/academic support for students and solutions for digital inequalities among students with limited technology preparedness. Interestingly, this study indicated that the participants with positive attitudes during the COVID-19 pandemic employed adaptive coping skills, such as acceptance, positive reframing, and emotional/social support against the stress of

the pandemic, while the participants with negative attitudes emphasized their academic stress rather than coping skills they could use.

Although this study revealed meaningful findings, there were limitations. The study took place at one rural, midwestern university in the United States, so study findings cannot be generalized to other institutions. Another limitation was not collecting post-sort interviews or requesting comments to further verify and describe the viewpoints.⁴³ Although absence of these interviews and comments represents a break from normal Q practice, they were not carried out in efforts to minimize participation time and mitigate research fatigue that has been experienced during COVID-19.⁵²

It is critical for higher education institutions to address these very different types of students when it comes to their abilities to cope with the pandemic / post-vaccine academic world. This study revealed two common viewpoints about how the COVID-19 pandemic impacted the stress and coping strategies of college students; one group expressed positive attitudes and employed adaptive coping skills, while the other voiced negative attitudes with high academic stress and lack of coping. Based on their different ways of coping with the pandemic, these students have different needs. Colleges should consider tailored support programs and diverse resources that reflect the unique needs of individual students. For example, students experiencing negative attitudes may benefit from psychological assistance or intervention offered by university counseling centers. Students with academic stress may benefit

from tutoring or coaching offered by university libraries and career centers. Students with a lack of positive coping may benefit from preventative programming and workshops offered by university health centers and wellness programs. Students with positive attitudes and coping may benefit from serving as peer mentors through student organizations and campus employment. To achieve the best possible learning environment for students, it is imperative that colleges avoid treating the COVID-19 pandemic and other challenges as having a one-size-fits-all solution.⁵³

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HSL and MJL designed the study. HSL and MJL collected the data. HSL analyzed the data. HSL wrote the first draft with contributions from LML and MGT. All authors reviewed and commented on subsequent drafts of the manuscript.

STATEMENT OF POTENTIAL CONFLICT OF INTEREST

No potential conflicts of interest were reported by the authors.

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