Building Resilience Among College Students: A Cross-Cultural Investigation on the Importance of Quality Crisis Communication and Social Support

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Abstract: Building on job demands-resources (JD-R model) and the social support theory, this study investigates how perceived quality of crisis communication and social support influence perceived uncertainties, emotional exhaustion, and resilience among college students in Kenya and the United States during the COVID-19 crisis. Data were collected using a survey (*N*= 394). The results indicate that higher perceived quality of crisis communication is associated with lower perceived uncertainties about the COVID-19 crisis. Both peer and advisor support are found to reduce students' perceived uncertainties. Notably, Kenyan students reported receiving more peer support compared to American students, while American students reported higher levels of advisor support. Additionally, perceived uncertainties mediated the relationship between advisor support and emotional exhaustion. Contrary to expectations, organizational intransigence did not moderate the relationship between social support and perceived uncertainties. Finally, a positive association was observed between perceived quality of crisis communication and resilience among students. These findings suggest the importance of effective crisis communication and social support in fostering resilience among students, with implications for both policy and practice across different cultural contexts.

Keywords: COVID-19, emotional exhaustion, crisis communication, social support theory, JD-R model, resilience.

The COVID-19 pandemic led to significant disruptions across all sectors globally, presenting organizations with unprecedented challenges in supporting their stakeholders. One of the most impacted sectors was education, where universities had to rapidly transition from in-person to online learning environments. This abrupt change had profound effects on students' psychological well-being (Bao, 2020). Moreover, the uncertainty surrounding the resumption of regular learning and the challenges of adapting to remote education exacerbated mental health issues among students (Murphy, 2020; Wang *et al*., 2020). Additionally, the loss of on-campus jobs and employment opportunities in surrounding communities further intensified students' stress and uncertainty (Fernández-Olmos *et al*., 2021).

Now that the most acute phase of the pandemic has passed, largely due to widespread vaccination and other therapeutic interventions, it is essential to reflect on the strategies universities employed to support their students during this crisis. Universities played a pivotal role in mitigating the impact of the pandemic on students, not only through academic adjustments but also by providing various forms of social and emotional support. Understanding these strategies is crucial, as it allows us to assess their effectiveness and draw lessons for future crises. One key strategy that emerged was fostering resilience among students. Resilience, defined as the ability to recover and adapt to stress with minimal disruption to one's stability (Linnenluecke, 2015), is critical in helping individuals overcome the adverse effects of crises. Research shows that resilient students tend to perform better academically and report higher levels of well-being (Chen, 2016). However, the development of resilience often requires proactive support from university administrations, highlighting the importance of effective support systems during crises. This study, therefore, seeks to explore the specific interventions universities implemented to help students build resilience and manage the challenges posed by COVID-19.

Current research on student experiences during crises has focused on Western and Asian contexts, leaving a gap in understanding how universities in diverse cultural settings, such as Africa, have supported their students. To address this gap, the current study adopts a cross-cultural approach, comparing the experiences of students in the United States and Kenya. Research on African populations in crisis contexts remains underrepresented, despite the unique challenges and responses that may arise from these settings. Given that COVID-19 was a global crisis, examining how different cultural contexts influenced university support strategies is essential.

The study's first goal is to compare how perceived uncertainties affected students' emotional exhaustion

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across these two settings. The second aim is to analyze the role of social support—specifically, advisor and peer support—as key interventions by universities to mitigate perceived uncertainties. Previous literature suggests that social support from supervisors or advisors can significantly reduce uncertainties in stressful situations (Charoensukmongkol & Phungsoonthorn, 2020; Skiba & Wildman, 2019). In educational settings, social support from professors, advisors, and peers plays a crucial role in reducing uncertainties and fostering resilience among students (Ndone & Kiura, 2022).

Furthermore, this study investigates the potential challenges posed by unfavorable organizational climates, such as organizational intransigence, which may have limited the effectiveness of university support during the pandemic. Organizational intransigence, characterized by a reluctance to deviate from traditional practices, could hinder adaptive responses to crises like COVID-19 (Patterson *et al*., 2005). Given the dynamic nature of the pandemic, clinging to established methods may have been counterproductive, suggesting a need to understand how organizational flexibility could have enhanced support efforts. Therefore, this study also explores how organizational intransigence may have moderated the effectiveness of social support in reducing uncertainties during the crisis (Charoensukmongkol & Phungsoonthorn, 2020; Moussa *et al*., 2018).

This research is grounded in the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007) and social support theory (Amason *et al*., 1999), providing a theoretical framework to understand how different forms of support can reduce students' perceived uncertainties and alleviate emotional exhaustion. By examining these dynamics, this study offers valuable insights into how universities can better prepare for future crises and support their students' well-being. From a university administration standpoint, the findings could inform the development of more effective support systems that not only address immediate needs during crises but also foster long-term resilience among students.

LITERATURE REVIEW

COVID-19 Crisis, Perceived Uncertainties, Emotional Exhaustion, and Crisis Communication

A crisis is defined as "a sudden and unexpected event that disrupts an organization's operations and poses both financial and reputational threats" (Coombs, 2007, p. 164). Crises generate high levels of uncertainty among those affected (Lesch & Millar, 2021). Uncertainty refers to a person's inability to accurately predict events or situations (Milliken, 1987). During a crisis, individuals often experience heightened anxiety as they seek to understand how to manage the situation and look to organizations for guidance on mitigation strategies. This heightened anxiety can lead to psychological issues, such as emotional exhaustion—a state of chronic emotional depletion due to accumulated stress (Charoensukmongkol, 2017; Wright & Cropanzano, 1998). Emotional exhaustion occurs when individuals are unable to cope with persistent stressors, leading to feelings of burnout and anxiety (Thompson *et al*., 2020).

Research indicates that the COVID-19 crisis significantly contributed to emotional exhaustion among college students (Zis *et al*., 2021). Factors such as the abrupt shift from in-person to virtual learning, inconsistent information on protective measures, and disruption of normal routines were commonly reported sources of stress for students (Gritsenko *et al*., 2020). To address the challenges posed by a crisis, organizations must act swiftly to reduce uncertainty and fill the information void that crises often create (Woon & Pang, 2017). One key strategy is crisis communication, which involves ongoing dialogue with affected publics to provide clear and timely information (Fearn-Banks, 2017). Crisis communication encompasses both instructing and adjusting information (Coombs, 2007). Instructing information provides the public with essential actions to protect themselves from the immediate effects of a crisis, while adjusting information aims to address psychological needs and reduce anxiety by detailing what the organization is doing to mitigate further impacts (Page, 2022).

For universities, maintaining consistent and clear communication with students during a crisis is crucial to help manage uncertainties and alleviate emotional exhaustion. As noted earlier, emotional exhaustion is a core component of burnout caused by prolonged stress (Lambert *et al*., 2018). Its manifestations include reduced motivation, lower performance, and decreased commitment to the organization (Seriwatana & Charoensukmongkol, 2020). Leadership in organizations, particularly in educational settings, is critically tested during crises as stakeholders look to them for direction and reassurance (Van Zoonen & Van der Meer, 2015). The quality of crisis communication—both instructing and adjusting—provided by leadership reflects the organization's preparedness to manage crises effec-

tively (Allen *et al*., 2007). Effective, timely communication can significantly reduce uncertainty and help individuals recover more quickly from emotional exhaustion (Claeys *et al*., 2010). In the context of higher education, universities that provide high-quality crisis communication can better help students manage the uncertainties brought on by crises, reducing emotional exhaustion and fostering resilience. Thus:

H_1: The perceived quality of crisis communication from universities will be negatively associated with students' perceived uncertainties.

Cross-Cultural Communication During a Crisis

While crisis communication research has expanded significantly, there is a notable gap in cross-cultural crisis communication studies, particularly involving African populations. Culture can be understood as the "collective programming of the mind which distinguishes the members of one group from another" (Hofstede, 1984, p. 25). Studies examining cultural differences have often focused on dimensions such as masculinity-femininity, uncertainty avoidance, power distance, long-term orientation, and individualism-collectivism (Hofstede, 1984; Hofstede & Bond, 1987).

The individualism-collectivism dimension is one of the most explored in cultural studies and is frequently used to compare Asian and Western cultures (An *et al*., 2010; Triandis, 1995). Individualistic cultures prioritize personal goals over group goals, emphasizing self-reliance, freedom of choice, emotional independence, and decision-making based on cost-benefit analyses (Hofstede, 1984; Triandis, 1989). On the other hand, collectivistic cultures emphasize group goals, conformity, sharing, and in-group harmony (Hofstede, 1984). In this dimension, American culture is typically seen as highly individualistic, prioritizing personal achievements over communal objectives, while Kenyan culture is considered more collectivistic, with a stronger emphasis on communal goals and collective well-being (Ma & Schoeneman, 1997).

Research involving African populations remains limited, despite the continent representing a significant portion of the global population and a critical area for future research development (Elsevier, 2018). Africa is the youngest and fastest-growing continent, with a median age of 19.7 years, making it a vital area for research that can inform policy and help reduce health and educational disparities compared to developed regions (Marincola & Kariuki, 2020).

Kenya, in particular, has emerged as a leader in advocating for increased research output from Africa. Kenyan scholars have called for open science practices to foster research growth on the continent (Mwangi *et al*., 2021). The expansion of information and communication technology (ICT) infrastructure in Kenya provides a robust platform for conducting research involving African populations. Therefore, this study addresses the need for more cross-cultural research by comparing the experiences of students from the USA and Kenya, focusing on how individualistic and collectivistic cultures affect crisis communication and support systems.

Social Support, Perceived Uncertainties, and Emotional Exhaustion

During crises, like the COVID-19 pandemic, support mechanisms play a crucial role in helping individuals manage stress and uncertainty (Cohen *et al*., 2000). Social support refers to the assistance provided by an individual's social network, offering both material and psychological resources that help alleviate stress and suffering (Amason *et al*., 1999). In university settings, students can receive social support from professors, advisors, and peers. This support is particularly important during crises, as it can significantly mitigate the negative psychological impacts, such as anxiety and emotional exhaustion (Charoensukmongkol & Phungsoonthorn, 2021).

Research from management literature suggests that supervisor support is vital in helping individuals navigate challenging situations, as supervisors often have more resources to assist their team members (Skiba & Wildman, 2019). Similarly, in educational contexts, advisors—akin to supervisors—can provide students with the necessary resources and guidance to help them cope with crises, such as the shift to online learning during COVID-19 (Charoensukmongkol & Phungsoonthorn, 2020). Moreover, advisors can fill information gaps when university communication is insufficient, helping students understand the situation and reducing anxiety (Eisenberger *et al*., 2002). This role is not just about information delivery but also about emotional support, which can foster positive attitudes and resilience among students.

The importance of social support can be understood through social support theory, which suggests that social networks provide a buffer against stress by influencing how individuals perceive and cope with crises (Amason *et al*., 1999; Shumaker & Brownell, 1984). In universities, advisors often serve as key

sources of social support, offering motivation, encouragement, and practical assistance that reduce perceived uncertainties during a crisis, such as the COVID-19 pandemic. This support can effectively lower emotional exhaustion among students by providing them with coping strategies and emotional resources (Tummers *et al*., 2018).

Another useful framework for understanding the role of social support in reducing emotional exhaustion is the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007). The JD-R model, widely used in organizational communication literature, posits that stress arises from an imbalance between job demands and the resources available to meet those demands. In a university context, this model suggests that students face various demands similar to employees in a workplace, including academic workloads, time pressures, and financial constraints (Plakhotnik *et al*., 2021). Resources such as advisor and peer support can act as 'job resources' that mitigate these demands, thus reducing stress and emotional exhaustion (Hu *et al*., 2016).

Drawing from both social support theory and the JD-R model, this study examines how advisor support and peer support can directly reduce students' perceived uncertainties during the COVID-19 crisis. Since perceived uncertainties contribute significantly to emotional exhaustion, it is proposed that advisor support and peer support will alleviate emotional exhaustion by reducing these uncertainties. This leads to the following hypotheses:

H_{2a}: Advisor support will reduce the perceived uncertainties of university students.

H_{2b}: Peer support will reduce the perceived uncertainties of university students.

H_3: The negative effect of social support on the emotional exhaustion of students will be mediated by perceived uncertainties.

In addition to advisor support, peer support is also crucial. Research indicates that peer support can enhance student well-being and reduce stress by providing a sense of community and shared understanding (Kazerooni *et al*., 2020; Killgore *et al*., 2020). However, cultural factors play a significant role in how this support is manifested and perceived. For example, in individualistic cultures like the United States, students might prefer advisor support due to its structured and resource-oriented nature (Kim, 1994). In contrast, in collectivistic cultures such as Kenya, where there are greater power distances between students and their advisors (Hofstede, 1984), peer support may be more prevalent and effective because students feel more comfortable seeking help from their peers. This cultural distinction suggests that American universities may report higher levels of advisor support, while Kenyan universities may show higher levels of peer support, leading to the following hypotheses:

H_{4a}: Students in American universities will report higher levels of advisor support than Kenyan university students.

H_{4b}: Students in Kenyan universities will report higher levels of peer support than students in American universities.

The Moderating Role of Organizational Intransigence

Despite the positive effects of social support in reducing perceived uncertainties, other inhibiting factors could increase uncertainties. One such factor is the work climate within universities, particularly the concept of organizational intransigence, which refers to an organization's resistance to change and adherence to traditional ways of operating (Charoensukmongkol & Phungsoonthorn, 2020). Organizational intransigence can limit the flexibility and responsiveness of university advisors in providing essential social support to students, especially during unprecedented crises like COVID-19. Intransigence typically occurs when organizations are slow to adapt to new methods, preferring established practices even when these may no longer be effective in crisis management (Døjbak *et al*., 2008). This reluctance to change can lead to inadequate responses to crises, as universities fail to implement timely and innovative strategies needed to support students effectively (Charoensukmongkol & Phungsoonthorn, 2020).

When universities resist change, it restricts advisors' ability to innovate and offer tailored support, which is crucial during crises. Advisors in such rigid environments are often constrained by organizational norms and policies that discourage deviation from the status quo (Dov, 2008). Consequently, any attempt to introduce novel interventions or support strategies may face resistance from senior management, further limiting the effectiveness of social support initiatives. This resistance not only maintains uncertainty among students but also hampers efforts to reduce stress and promote resilience. In environments characterized by

high organizational intransigence, the positive effects of social support on reducing perceived uncertainties may be diminished or altogether absent. In contrast, universities with low organizational intransigence are more likely to empower advisors and staff to implement flexible and adaptive support strategies, enhancing their ability to reduce student uncertainties during crises. Resultantly, the following hypothesis is posited:

H_5: Organizational intransigence will moderate the relationship between social support and perceived uncertainties of university students. The relationship will be more pronounced in universities with low organizational intransigence.

The Relationship between Crisis Communication and Resilience

Crises are inherently uncertain and ambiguous, making effective crisis communication a critical tool for fostering resilience among affected individuals (Ayyub, 2013; Buzzanell, 2010). Resilience, defined as the ability to adapt and recover from stress, loss, or trauma, is a vital trait that can help students navigate the psychological challenges posed by crises (Chmitorz *et al*., 2018). Resilient students are more likely to engage in positive coping behaviors, such as proactively managing stressors, which aids in their recovery and adjustment to new circumstances (Secades *et al*., 2016). Prior research has demonstrated that resilience not only helps prevent emotional exhaustion but also promotes emotional stability, enabling students to better adjust to disruptions in their academic and personal lives (Fullerton *et al*., 2021; Klinoff *et al*., 2018).

Researchers have highlighted several factors that contribute to building resilience, including social support and effective crisis communication (Beck & Bredemeier, 2016; Seeger & Mitra, 2019). In higher education, institutions can play a significant role in fostering resilience by implementing communication strategies that provide clear, consistent, and supportive messages. These strategies help reduce uncertainty and anxiety, which are critical in maintaining student well-being during crises (Ladson-Billings & Tate, 2016; Michelli, 2020). For example, initiatives that encourage open dialogue, provide socio-emotional resources, and promote supportive policies can significantly enhance students' ability to cope with uncertainty and stress (Charoensukmongkol & Phungsoonthorn, 2020).

Effective crisis communication has been identified as a critical factor in building the publics' resilience because it can help create a sense of preparedness and control among individuals facing a crisis. Elements such as improvisation, coordination, and endurance are vital components of resilient responses, which organizations must cultivate through strategic communication efforts (Boin *et al*., 2010). Crisis communication research has explored how organizations and the publics forestall and respond to uncertainties or even adversities a crisis brings (Williams *et al*., 2017). Given the importance of resilience in crisis management, examining the relationship between the quality of crisis communication and resilience is crucial. Previous studies suggest that effective communication can help individuals recover from stress and trauma by reducing perceived uncertainties and fostering a supportive environment (Tugade & Fredrickson, 2004).

Further, scholars argue that resilience is a cross-cultural trait people learn based on their environment, misfortune, life experiences, and culture (Herrman & Kieling, 2021; Kimhi *et al*., 2020). Understanding how resilience is perceived and developed in different cultures, and how crisis communication can be tailored to foster resilience among diverse student populations, is essential. Since quality crisis communication has been shown to reduce perceived uncertainties (Charoensukmongkol & Phungsoonthorn, 2021), and lower perceived uncertainties are associated with higher resilience, the researcher predicts that:

H_6: The quality of crisis communication will be positively associated with resilience.

METHOD

Pilot Test

Before collecting the main data, a pilot test was conducted to assess the viability and clarity of the survey, estimate the time needed for completion, and evaluate the overall feasibility of the study (Hassan *et al*., 2005). The pilot test involved 23 students (N = 23) enrolled in a communication class, who provided feedback on the survey's length and comprehensibility. Based on this feedback, minor adjustments were made to the survey to ensure its effectiveness. Following the pilot test, the researcher proceeded with participant recruitment for the main study.

Participants

The researcher collected data from university students in Kenya and the United States. A total of 394 college students participated in this study. In the United

States, the participants were 169 college students. About 43% were male, and 57% were female. The mean age of the participants was 24.24 (*SD* = 7.82). In Kenya, the participants were 125 college students, with about 45% identifying as male and 55% as female. The mean age of the participants was 22.36 (*SD* = 3.08). Of the sample, 36 identified as graduate students, 63 as seniors, 100 as juniors, 89 as sophomores, and 106 as freshmen.

Procedure

All procedures were reviewed and approved by a large eastern university's institutional review board (IRB). Participants in the US were recruited through Dynata, an online crowdsourcing service. Dynata allows participants to complete surveys online and get paid for doing so. Kenyan students were recruited using Transolutions Africa, a survey research company based in Nairobi. Prior to participation, all students were required to read and agree to informed consent, in accordance with IRB guidelines, ensuring they were fully informed about the study's purpose and their rights as participants.

Measures

Quality of Crisis Communication

Bordia *et al*. 's (2004) scale was used to measure the perceived quality of crisis communication. The 7-item scale assessed students' perceptions of the quality of crisis communication received from the university. Sample items from this scale included, 'The university gives us as much information as possible about COVID-19' and 'The university communicates the actions they are taking to deal with COVID-19.' Participants were asked to rate each statement following a seven-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.8, *SD* = 1.41, *a* = 0.88).

Perceived Uncertainties

The scale developed by Allen *et al*. (2007) was adapted to assess uncertainties specific to COVID-19, modifying items to reflect the context of the pandemic. The adapted scale included five items: ' I am certain that the COVID-related problems will be solved'. The respondents were asked to rate each statement on a seven-point Likert-type scale, ranging from 1 = *very uncertain* to 7 = *very certain* (*M* = 3.40, *SD* = 1.2, *a* = 0.81).

Emotional Exhaustion

Emotional exhaustion was assessed using a scale developed by Maslach and Jackson (1981). The scale included items such as 'I feel used up at the end of the school day' and 'I feel emotionally drained from my schoolwork.' Participants were asked to rate each statement following a seven-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.14, *SD* = 0.44, *a* = 0.87).

Advisor Support

The scale developed by Cole *et al*. (2006) was used to measure advisor support. The four-item scale measured students' perceptions of their academic advisor's support. Sample items included 'My advisor assures me that help is available if needed' and 'I can fully rely on my advisor.' Participants were asked to rate each statement following a seven-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.60, *SD* = 1.50, *a* = 0.85).

Peer Support

Peer support was assessed using the scale developed by Tews *et al*. (2013). The scale included items such as 'My fellow students (peers) take time to listen to my COVID-19 concerns' and 'My fellow students (peers) listen to me when I have to get something off my chest regarding COVID-19.' Participants were asked to rate each statement following a five-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.51, *SD* = 0.86, *a* = 0.91).

Organizational Intransigence

Patterson *et al*. (2005) provided the scale used to measure organizational intransigence. The five-item scale contained items like 'Senior management likes to keep established, traditional ways of doing things' and 'Changes in how things are done here happen very slowly.' Participants were asked to rate each statement following a seven-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.61, *SD* = 1.20, *a* = 0.84).

Resilience

Resilience was measured using the scale developed by Smith *et al*. (2008). The scale included items such as 'I tend to bounce back quickly after hard times' and 'I usually come through difficult times with little trouble.' Participants were asked to rate each statement following a seven-point Likert-type scale, ranging

from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.07, *SD* = 0.32, *a* = 0.83).

Individualism-Collectivism

Individualism-collectivism was treated as a one-dimensional scale with an opposite concept. That is, when individualism was high, collectivism was expected to be low. Therefore, collectivism was regarded as the reversed score of individualism. Individualism-collectivism concept has been measured this way previously in crisis communication research (An *et al*., 2010). Individualism was measured using Hofstede's Values Survey Modules (VSM94). The scale included items such as 'I have sufficient time left for my personal or family time' and 'I have considerable freedom to adopt my own approach to the job'. Participants rated each statement following a seven-point Likert-type scale, ranging from 1 = *strongly disagree* to 7 = *strongly agree* (*M* = 4.30, *SD* = 0.54, *a* = 0.86).

Control Variables

To account for potential confounders, several demographic variables were controlled for in the analysis, including age, gender, year in school, and education level (Valeri & Vander Weele, 2013). This was done to ensure that the results were not biased by these factors and to provide a clearer understanding of the primary relationships being studied.

RESULTS

Hypotheses Testing

Several statistical tests were conducted to test the hypotheses. All hypotheses were tested in R (Posit) statistical software. The first hypothesis (H_1) predicted that the perceived quality of crisis communication that a university provides to the students would be negatively associated with the perceived uncertainties of students regarding COVID-19. This hypothesis was supported, (Kenyan: β = -0.54, t = -8.71, p < .001; American: β = -0.51, t = -9.03, p < .001). The second hypothesis (H_{2a}) predicted that advisor support would reduce the perceived uncertainties of university students. This hypothesis was supported, (Kenyan: β = -0.32, t = -4.69, p < 001; American: β = -0.41, t = -6.62, p < 001). Similarly, the hypothesis predicting that peer support will reduce perceived uncertainties of university students (H_{2b}) was also supported, Kenyan: β = -0.25, t = -2.83, p < 001; American: β = -0.37, t = -4.23, p < 001).

Hypothesis 3 (H_3) suggested that perceived uncertainties would mediate the relationship between social support (both advisor and peer support) and students' emotional exhaustion. This mediation was tested using Hayes' Process Macro (Module 4) in the R Studio Package (Hayes, 2022). To determine the significance of the indirect effects, a bootstrapping method with 5,000 resamples was used (Hayes, 2009). The effects were considered significant if the 95% bias-corrected confidence intervals did not include zero (Preacher & Hayes, 2008). Gender, race, education, marital status, and income were included as covariates to control for potential confounders (Valeri & VanderWeele, 2013). The mediation analysis showed that perceived uncertainties significantly mediated the relationship between advisor support and emotional exhaustion for both American and Kenyan students American: β = 0.01, p < 0.001, 95% CI [0.09, 0.39]; Kenyan: β = 0.03, p < 0.001, 95% CI [0.09, 0.38]. Additionally, perceived uncertainties mediated the relationship between peer support and emotional exhaustion for both groups American: β = 0.07, p < 0.001, 95% CI [0.03, 0.21]; Kenyan: β = 0.09, p < 0.001, 95% CI [0.02, 0.41]. Therefore, H_3 was supported.

In examining the differences in social support, American students reported higher levels of advisor support (*M* = 4.76, *SD* = 1.50) than peer support (*M* = 3.49, *SD* = 1.38), whereas Kenyan students reported higher levels of peer support (*M* = 5.02, *SD* = 1.20) compared to advisor support (*M* = 3.27 *SD* = 1.46). Therefore, H_{4a} and H_{4b} were supported.

To test the moderation role of organizational intransigence (H_4), moderation analysis using Hayes PROCESS Macro for R (Hayes, 2022). This hypothesis was not supported for either American or Kenyan students; American: β = -0.31, p = 0.44, 95% CI [-0.58, 0.93]; Kenyan: β = 0.03, p = 0.42, 95% CI [-0.048, 0.12].

Finally, H_6 proposed that the quality of crisis communication would be positively associated with resilience. This hypothesis was tested using regression analysis and was supported for both American and Kenyan students. For American students, the quality of crisis communication was significantly associated with resilience, β = 0.11, t(167) = 1.17, p = 0.02, and for Kenyan students, β = 0.31, t(127) = 1.29, p < 0.01. The quality of crisis communication explained a significant proportion of variance in resilience scores among American students, R^2 = .03, F(1, 167) = 10.59, p < 0.01, and Kenyan students, R^2 = .06, F(1, 127) = 8.57, p < 0.01.

DISCUSSION

Summary of the Findings

This study aimed to explore the roles of social support, crisis communication, and organizational intransigence in shaping students' perceived uncertainties, emotional exhaustion, and resilience during the COVID-19 pandemic across two cultural contexts: the United States and Kenya. The findings reveal several key insights. First, the perceived quality of crisis communication provided by universities was negatively associated with perceived uncertainties among students in both countries, supporting the hypothesis that effective communication can reduce anxiety and confusion during crises. However, it is important to note that the study assessed students' perceptions of crisis communication quality, not the actual quality of the communication itself. Thus, the current results should be interpreted in the context of the COVID-19 crisis and students' perception of the quality of crisis communication offered by their universities. Second, both advisor and peer support were found to significantly reduce perceived uncertainties among students, highlighting the importance of social support in mitigating the adverse psychological effects of crises. Third, perceived uncertainties were found to mediate the relationship between social support (both advisor and peer support) and emotional exhaustion, indicating that reducing uncertainties can help alleviate emotional fatigue among students.

Additionally, the study found that American students reported higher levels of advisor support, while Kenyan students reported higher levels of peer support, reflecting cultural differences in how social support is accessed and utilized. However, contrary to expectations, organizational intransigence did not moderate the relationship between social support and perceived uncertainties, suggesting that resistance to change at an institutional level may not significantly impact the effectiveness of support mechanisms in reducing uncertainty. Finally, the quality of crisis communication was positively associated with resilience, emphasizing the role of effective communication in helping students adapt and recover during challenging times.

Theoretical Implications

This study has several theoretical implications. It contributes to the growing body of literature on the role of crisis communication in mitigating uncertainties brought forth by a crisis. During a crisis, the publics are anxious as they try to make sense of the crisis (Coombs, 2007). Therefore, organizations must provide information to the publics to help manage the uncertainties. Existing research suggests that the quality of crisis communication reduces uncertainties among the publics affected by a crisis (Charoensukmongkol & Phungsoonthorn, 2020). Effective crisis communication is essential in reducing public anxiety and uncertainty among internal publics (Ndone, 2023) and external publics (Ndone *et al*., 2022), especially during global health crises like COVID-19 (Hirschfeld & Thielsch, 2022).

Second, the current study supports the JD-R model by demonstrating that social support, both from peers and advisors, serves as a critical resource that can alleviate the stress and emotional exhaustion caused by crises like COVID-19 (Bakker & Demerouti, 2007; Charoensukmongkol & Phungsoonthorn, 2020; Skiba & Wildman, 2019). Recent studies have reinforced the importance of social support in educational settings, showing that strong support networks significantly contribute to reduced stress and improved mental health outcomes among students during the pandemic (Labrague & Ballad, 2021; Son *et al*., 2020). The mediation effect of perceived uncertainties further highlights the importance of reducing uncertainty as a pathway to lowering emotional exhaustion, thus offering a nuanced understanding of how resources and demands interact during crises. Additionally, the study contributes to social support theory by emphasizing the significant role of advisor and peer support in buffering the negative psychological effects of crises, particularly within the educational context (Amason *et al*., 1999; Shumaker & Brownell, 1984). Recent studies have further emphasized the crucial role of social support showing that strong support networks significantly contribute to reduced stress and improved mental health outcomes during crises (Choi *et al*., 2022; Li & Li, 2024).

The study also challenges some assumptions within the JD-R model regarding the moderating role of organizational intransigence. While previous research suggests that organizational intransigence could limit the effectiveness of support systems during crises (cf. Charoensukmongkol & Phungsoonthorn, 2020; Patterson *et al*., 2005), the current findings indicate that intransigence may not always have a significant moderating effect. This suggests the need for further theoretical exploration into the conditions under which organizational intransigence influences the relationship between social support and perceived uncertainties.

Cultural Implications

The cultural differences observed in the utilization of social support between American and Kenyan students highlight the importance of considering cultural context in crisis management strategies. In individualistic cultures like the United States, students may rely more on structured advisor support, which aligns with the culture's emphasis on personal achievements and resource-oriented decision-making (Hofstede, 1984; Triandis, 1989). In contrast, the collectivistic culture of Kenya, characterized by strong in-group harmony and higher power distance, likely contributes to the higher levels of peer support reported by Kenyan students. This finding underscores the need for culturally tailored support strategies that take into account the specific social dynamics and preferences of different cultural groups.

Moreover, the study adds to the limited body of cross-cultural crisis communication research by highlighting how cultural contexts influence the effectiveness of crisis communication and social support. The differences observed in this study suggest that universities in different cultural contexts may need to adopt varied approaches to support student well-being. For example, American universities could explore strategies to enhance peer support mechanisms, possibly drawing lessons from the Kenyan context. As universities and other organizations continue to operate in increasingly globalized environments, understanding these cultural differences becomes crucial for designing effective crisis communication strategies that resonate with diverse audiences (Mukhtar, 2020).

Practical and Policy Implications

From a practical standpoint, this study provides actionable insights for university administrators and policymakers. The findings suggest that enhancing the quality of crisis communication can significantly reduce students' perceived uncertainties and foster resilience. Universities should prioritize clear, consistent, and supportive communication during crises, as these efforts can help mitigate the negative psychological effects on students and improve their overall well-being. Evidence shows that transparent and empathetic communication from educational institutions during COVID-19 has been linked to better coping and adaptation among students (Aristovnik *et al*., 2020; Tang *et al*., 2020).

The study also highlights the importance of social support systems in educational settings. Universities should create more opportunities for peer interactions, particularly in collectivistic cultures, where students may prefer seeking support from their peers due to cultural norms around power distance. Additionally, university management should encourage advisors to actively engage with students and address issues that could lead to emotional exhaustion. Implementing structured support programs and fostering a supportive academic environment have been shown to enhance students' mental health and academic performance during crises (Hamza *et al*., 2021; Li *et al*., 2021). By integrating social support into crisis communication strategies, universities can create a more holistic support system that reinforces the messages from university management and provides students with the resources they need to navigate crises effectively.

Lastly, while the study found that organizational intransigence did not significantly moderate the relationship between social support and perceived uncertainties, it remains important for institutions to remain flexible and adaptive in their crisis management approaches. Policymakers should advocate for organizational cultures that encourage innovation and responsiveness, ensuring that support systems can be adjusted swiftly to meet emerging needs during unprecedented crises like COVID-19 (Dwivedi *et al*., 2020; Watermeyer *et al*., 2021).

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This study has several limitations that can be used as a springboard for future research. First, the researcher did not explore other factors such as fear of COVID-19 or risk perception, which could have influenced the findings. Future studies should consider these variables to provide a more comprehensive understanding of the factors affecting students during crises. Additionally, the cross-cultural survey design used in this study does not allow for the establishment of causal relationships. Future research could adopt experimental designs to better determine causality.

Interestingly, the current study found that Kenyan students reported higher levels of peer support, while American students reported higher levels of advisor support, reflecting cultural differences in how social support is accessed and utilized. Although this finding suggests that cultural factors play a significant role in determining the type of support that is most effective, the current study did not directly investigate how these support systems were established or the specific

mechanisms through which Kenyan students accessed peer support. Further research is needed to understand whether these support structures were facilitated by the universities or emerged organically among students. Specifically, it would be beneficial for future studies to explore whether Kenyan universities actively foster peer support or if these networks develop more organically among students. Understanding these mechanisms could provide insights into how American universities might adapt similar strategies to enhance peer support, fostering a more supportive environment tailored to cultural preferences.

The reliance on self-reported data presents another limitation, as participants may have been influenced by social desirability bias. Moreover, the relatively small sample size limits the generalizability of the findings. Future research should aim to include larger and more diverse samples to enhance the robustness of the results. Finally, the role of organizational intransigence in moderating the effects of social support remains inconclusive, suggesting a need for further investigation into the specific conditions under which organizational resistance to change may impact crisis management outcomes. Future research could also investigate how organizational flexibility and adaptability impact support effectiveness during crises and resilience (Fleming *et al*., 2024; Kim & Kreps, 2020).

CONCLUSION

This study explored the interplay between crisis communication, social support, and organizational intransigence in influencing perceived uncertainties, emotional exhaustion, and resilience among college students in Kenya and the United States during the COVID-19 pandemic. The findings underscore the crucial role that effective crisis communication and social support play in managing students' psychological well-being during crises. Specifically, higher perceived quality of crisis communication was associated with lower perceived uncertainties, which in turn reduced emotional exhaustion and bolstered resilience. The cultural differences observed, with Kenyan students relying more on peer support and American students on advisor support, highlight the importance of tailoring crisis management strategies to specific cultural contexts. While organizational intransigence did not significantly impact the effectiveness of social support, the study reinforces the need for flexible and adaptive institutional practices during crises. These insights offer valuable contributions to both the Job Demands-Resources (JD-R) model and social support theory, emphasizing the importance of clear communication and robust support systems in fostering student resilience. As universities and other institutions continue to navigate complex global challenges, these findings provide actionable recommendations for enhancing crisis preparedness and supporting student well-being across diverse cultural settings.

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