

Mental Health and Well-Being Support for Thai University Graduates: A Qualitative Exploration of Pathways to Develop a Resilient Workforce

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Abstract

Providing appropriate resources to ensure university students' mental health and well-being is critical for their future role in the workforce, especially when faced with a disruptive crisis such as the COVID-19 pandemic. This qualitative research was designed with twofold purposes in the context of Thai higher education. Firstly, to explore the impacts on university graduates' psychosocial well-being and the support universities provided during the pandemic. Secondly, to examine gaps and develop recommendations for higher educational institutes to support students' mental health and well-being regularly and in times of crisis. Data was collected through in-depth interviews with 23 participants, giving voice to key stakeholders: graduate students ($n = 10$), faculty members ($n = 9$), and working professionals ($n = 4$). Using inductive analysis, data was analyzed into two main categories and six themes. The first category reflected three themes: psychosocial challenges of students, impacts on mental health, and the support provided by universities. Themes in the second category described multi-level approaches for supporting university students. These findings substantiate the linkages between mental health support and developing a resilient workforce for the future and suggest pathways for strengthening these by collaborative participation of stakeholders in higher education.

Keywords

Higher education; mental health; resilient workforce; well-being of university students

Introduction

There have been several disruptions, often severe and long-lasting, in the usual way of life due to the COVID-19 pandemic, and researchers note that among those who have been deeply impacted are university students (Liu et al., 2022; Mao et al., 2021; Mohan et al., 2023). This qualitative research was designed to address three interlocking concerns about the mental health and well-being of university students that emerged due to the pandemic crisis. The first concern was about the overall learning experiences of the students; for instance, as documented in a report published by the International Labour Organization (ILO) (2020b), the pandemic had a “devastating effect on the education and training of young people.” The second critical concern was the negative impact on the mental health and psychological well-being of university students, which was reported in several earlier studies, such as in the United States (Kecojevic et al., 2020), in Italy (Savarese et al., 2020), and later in systematic research reviews (Burns et al., 2020; Paz et al., 2022). The third cause for concern is the impacts of other concurrent factors on mental health and well-being. As noted in a report by the International Labour Organization (2020a), these factors include the lack of employment opportunities or unemployment, disposable income, and productivity, all of which could exacerbate the mental health problems of younger people.

In their systematic review of college and university students, Mao et al. (2021) explained that mental health problems, stress, and anxiety were confounded by not only adapting to online studies but also concerns about employment and an uncertain future. Based on their review of 24 studies in the *Lancet* journal, Brooks et al. (2020) reported that the negative impact of the pandemic on mental health and psychological well-being could be significant, widespread, and long-lasting. Researchers such as Kecojevic et al. (2020) highlighted the necessity of understanding the psychosocial impacts on university students and planning sustainable measures to support their mental health and well-being during and after the COVID-19 pandemic. Likewise, Schlesselman et al. (2020) expounded on the importance of institutional support in universities for upholding student resilience and well-being.

Thus, this qualitative research addressed the above concerns and the emerging research gaps. The first purpose of this research was to address the knowledge gap by using a qualitative approach to deeply understand and document the impact on the mental health and well-being of university students in Thailand and the support provided by Thai universities during the pandemic. Though emerging research from Thailand, Nochaiwong et al. (2020) reported the prevalence of mental health problems (depression, anxiety, stress, and psychological distress) in the general population affected by the pandemic; there was a lack of research that focused on Thai students at that time. Consequently, this qualitative research addressed a population gap. Thirdly, this research addressed the empirical-practical gap through the study’s second aim, which was to empirically develop recommendations about how stakeholders in higher educational institutes and universities could support the mental health and well-being of graduate students and consequently prepare them to be resilient workers of the future.

Literature review

This section discusses the behavioral science perspective of this research, the main research concepts with the supporting research evidence, and the emerging research objectives.

The behavioral science perspective of the research

The researcher used interdisciplinary behavioral science perspectives for this research, which helps to understand behavior holistically (Mohan, 2015). A behavioral science approach provides a multilevel framework for developing research and guidelines of best practices for building resilience in disasters, such as environmental or health-related (Mohan & Peungposop, 2014). Behavioral science researchers could play a significant role in developing adequate responses to the problems arising from the COVID-19 pandemic (Mohan et al., 2023; Van Bavel et al., 2020).

Based on the importance of using a behavioral science approach (Mohan, 2015), three significant implications emerged for this research. Firstly, a behavioral science approach allows for a systematic and interdisciplinary approach to understanding. Hence, this study was designed by integrating knowledge about psychosocial well-being, mental health, and resilience from various disciplines such as psychology, positive psychology, education, and quality-of-life research. Secondly, behavioral scientists use diverse sources of information. Thus, a review of relevant literature was conducted, and then data was collected through in-depth interviews that gave voice to the diverse perspectives of the stakeholders in higher education. Finally, behavioral science knowledge, which is systematically developed through research, can be applied more effectively in a chosen context to solve problems since it is based on understanding the context (Irwin & Suplee, 2012). Thus, the researcher aimed to develop research-based recommendations that could be applied to university students in Thailand and others in similar contexts when faced with a crisis.

The research concepts and supporting research evidence

This subsection presents the main research concepts of mental health and well-being and the importance of resilience in the future workforce.

Mental health and well-being of university students

There are several definitions of well-being in behavioral science. This research adopts the explanation of well-being given by the World Health Organization (1948), "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

This research aimed to look at the well-being of graduate students, especially from a mental health perspective. The term mental health in this research is based on the explanation that a state of mental well-being is one "that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community" (World Health Organization, 2022).

Researchers have noted that the COVID-19 pandemic has impacted the mental health and psychological well-being among the younger age groups, especially college and university students (Pandya & Lodha, 2022; Roy et al., 2021; Sundarasan et al., 2020). Other studies also noted the pervading effect of the prolonged pandemic on youth's mental health in various contexts, including in Thailand (Nochaiwong et al., 2020; Wang et al., 2021). Furthermore, mental health has been of concern in a developing country like Thailand even before the pandemic (Rhein & Nanni, 2022). These research studies make it imperative to understand

the problem deeply through systematic efforts so that evidence-based measures can be taken to address these growing concerns for the well-being of students (Campbell et al., 2022).

At the time of the conceptualization of this research, the researcher could not find any research that qualitatively explored the mental health and well-being of university students in Thailand during the pandemic. Thus, it became imperative to focus on understanding this target group using a qualitative approach.

The importance of resilience in the future workforce

Another essential concept in this research is resilience, which is explained regarding definitions and theories, its outcomes, and implications for this research. Resilience is a complex concept that can be defined from various perspectives. From a psychological level, Fletcher and Sarkar (2013) explained that resilience can refer to traits, processes, or capacity. The American Psychological Association (2022) defined resilience as “the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands.” Eminent behavioral scientists such as Bronfenbrenner (1979) and Ungar (2008) explained that human behavior results from an interaction between the individual and the social groups around them. Consequently, Ungar et al. (2013) demonstrated that resilience should be understood within a multisystemic understanding of person-environment reciprocal processes instead of trait-based understanding.

Furthermore, the theoretical background of this research is pinned on seminal work on stress and well-being, such as the transactional model of stress and coping by Lazarus and Folkman (1984). This important behavioral science model explains that an individual’s capacity to cope and adjust to stresses and life’s problems results from transactions (or interactions) between a person and their environment. Research studies have shown that positive coping in stressful situations can lead to resilience and well-being (Ricea & Liu, 2016). The appraisal of stress is a cognitive function that can be changed by coping resources, which may be at the individual or environmental levels. Resources provided at the environmental level can help to mitigate the negative impact of stress. These can be viewed as protective factors that enhance resilience and well-being and can be extrinsic and intrinsic (Wolkow & Ferguson, 2001). Thus, this research explored resilience in terms of interaction between students and their university environment.

Various researchers have enumerated the positive outcomes of resilience. Fredrickson (2001) recommended a positive psychology approach of “broaden and build theory,” wherein building resilience develops the strength in the individual to face adverse situations. Luthar and Cicchetti (2000) highlighted that resilience is a “dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma” and could lead to positive adjustment with the changes. The positive role and impact of resilience on life outcomes in the context of young adults have been emphasized by Zimmerman (2013).

In their valuable review on resilience, Southwick et al. (2014) emphasized two aspects of resilience that were suitable to meet the aims of this research. Firstly, this research focused on understanding the meaning of resilience and its connection with well-being from the perspectives of various stakeholders, such as from the context of individuals, families, organizations, societies, and cultures. Secondly, resilience can be enhanced and developed

through inputs at various levels and contexts, and this was linked to the second purpose of this research, which aimed to explore these inputs.

The need for enhancing resilience in the youth affected by the pandemic has been postulated in research studies across several countries (Krause, 2020; Polizzi et al., 2020). Polizzi et al. (2020) recommended efforts to reduce stress and anxiety and develop resilience to foster mental health recovery from the impacts. Furthermore, Nandy et al. (2021) urged developing an all-inclusive resilience model in higher education to deal with the negative consequences of the pandemic. For the current research, two rationales for exploring university support for students and resilience were based on explaining resilience as a process to harness resources to sustain well-being (Panter-Brick & Leckman, 2013). Secondly, recent research by the author found that young people could apply adaptive coping even during the COVID-19 lockdowns, which positively impacted their well-being (Mohan et al., 2023). Thus, the current research aimed to explore the impact of environmental resources (university support) on the coping and well-being of students and how this support could help develop a resilient workforce for the future.

The research objectives

Grounded in the theoretical frameworks of stress-well-being-resilience and a detailed review of literature and research, two main objectives of this research were identified. The first objective was to understand the experiences of the impacts on the mental health and well-being of students and the support provided by universities in Thailand during the COVID-19 pandemic. It was further decided that there is a need to understand the gaps in the support provided by the universities and explore what more could be done to support the students during normal times so that it could enhance resilience in times of crisis. Hence, the second objective was to explore the pathways for supporting students' mental health and well-being in universities, especially from the perspective of developing a resilient workforce for the future.

Research method

Based on the research objectives and a review of various methodologies, a qualitative approach seemed most appropriate for this research (Creswell & Poth, 2016. Lune & Berg, 2016). The nature of the information sought by the research objectives was best supported by a qualitative method of inquiry. This stance is corroborated by the explanation of Flick (2022), who alleged that qualitative research is concerned with analyzing the subjective meaning of an event or issue. Triangulation of information is necessary for a qualitative study (Lune & Berg, 2016), so this research used multiple perspectives regarding the students' experiences. Maxwell (2009) highlighted the interactive nature of this method, which was deemed helpful in the design of in-depth interviews planned for this study to explore the first objective. Furthermore, as Mathias et al. (2020) suggested, a qualitative assessment of the conditions of participants during the pandemic could be more suitable for developing interventions and policies to help them cope and adapt successfully in the future. Thus, a qualitative inquiry was also suitable for researching the second objective.

Scope of research

This research used in-depth interviews to collect data, using appropriate online platforms since Thailand's pandemic was still ongoing. Two primary sources of information were used to develop the qualitative phase of the data collection: First, a review of related literature and then interviews with two experts in the field of behavioral science who also held executive positions in the university. Next, data were collected from the selected participants of the study representing diverse perspectives such as that of graduate students, faculty members, and those involved in the management of higher education institutes and universities in Thailand, as well as professionals working in Thai private organizations. Qualitative data analysis techniques were used. The researcher checked the consolidated criteria for reporting qualitative research (COREQ), recommended for qualitative studies using interviews (Tong et al., 2007), and found that this research adequately met 25 of 32 criteria.

The research participants

The study context was the higher educational institutes and universities in Thailand, which had continued operations during the COVID-19 pandemic. First, four categories of key stakeholders in higher education and university context were determined based on consultation with academic experts. So, it was decided to interview participants who were from (a) top management of the university, such as the head of departments or deans; (b) head of curriculum or teaching program; (c) teaching faculty; and (d) students enrolled in masters and Ph.D. programs. During the interviews, it emerged that it was also important to interview the professionals working in Thai organizations to gather their opinions about the second research objective to understand the linkages of well-being with a resilient workforce.

The participants were selected using purposive sampling and further contacted by snowballing technique; participation was voluntary, and informed consent was obtained. In total, 23 participants were interviewed for this research. Table 1 shows the summary of the key informants in this research.

Table 1: Study Participants ($n = 23$)

Key Participants	Male	Female	Total
Final-year graduate students in the university	2	6	8
First-year international students	1	1	2
Head of department	1	1	2
Head of curriculum/teaching program	-	4	4
Faculty members	1	2	3
Working Professionals	3	1	4
Total	8	15	23

Among the graduate students ($n = 10$), eight were Thai, and two were international. The faculty members ($n = 9$) belonged to six Thai universities and included two heads or directors of departments, four heads of curriculum or graduate programs, and three teaching staff, of which two were counseling psychologists, and one was the head of research at the faculty level.

The working professionals ($n = 4$) included three Thai and one international employee who worked at top management levels in their organizations and had years of experience

recruiting new staff, including recent graduates from Thai universities. They worked in varied organizations; two worked in multinational firms, one in a leading Thai firm, and one in a subsidiary of an international retail chain.

Instruments

For the qualitative interviews, the researcher prepared guidelines from a review of the literature and the study objectives. These were assessed by an expert in behavioral science for content and structure. Interviews were conducted using open-ended questions. The list of questions was adapted to suit the context for each of the five categories of the key participants.

Data collection and procedures

Data were collected from March to May 2022 using appropriate health and safety measures prevalent during data collection due to the ongoing COVID-19 pandemic. All ethical procedures were followed, and the researcher acquired ethical clearance from the university's ethics committee before collecting data for this research (No: SWUEC/ E-276/2564).

Data was collected through in-depth interviews, wherein the inclusion criteria were that: (a) the participant would have been engaged in university and higher education context during the period of the pandemic from 2020–2022; (b) the participant would be willing to speak English (since the researcher could not speak Thai); (c) the participant would have access to online technology; and (d) was willing to participate.

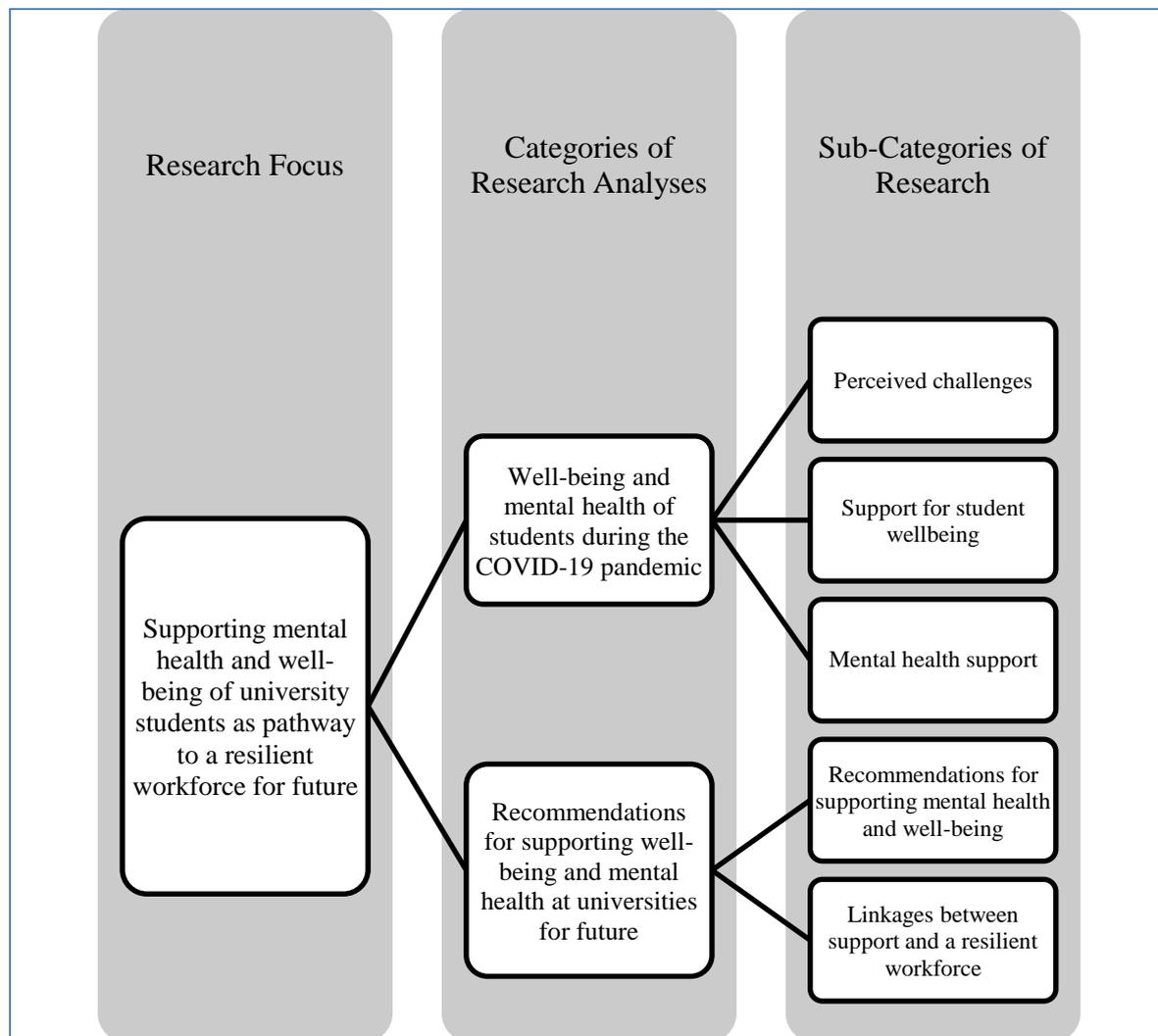
Interview guidelines were prepared and shared with the participants before the interview. The interviews lasted between 30–45 minutes. Following the guidelines by Charmaz (2014), data was collected till the information was saturated for each category of stakeholders, and an assessment of saturation in code and meaning was carried out, as highlighted by Aldiabat and Le Navenec (2018). After an initial analysis of the emerging information from the interviews for the second objective of the research, it was decided to add another category of stakeholders, Thai professionals working in multinational organizations. Triangulation of data collection sources was observed for validation purposes (Carter et al. 2014).

The research findings

Qualitative data collected from the 23 participants were analyzed using deductive and inductive approaches, which can be helpful in qualitative research (Braun & Clarke, 2006; Miles & Huberman, 1994). At the beginning of this process, the interview questions provided a framework for creating the main categories; applying a deductive approach helped provide a framework for the coding process (Azungah, 2018). Thus, based on the two main research objectives, the main findings from this research were classified into two categories: First, the experiences of students during the pandemic, and second, the recommendations for how universities could support mental health and well-being to build a resilient workforce for the future. Next, the researcher used inductive analysis to identify the themes and sub-themes from the data. An overview of the research focus, categories, and sub-categories from the data analysis is shown in Figure 1.

For systematic and scientific data processing, the thematic analysis technique was adapted from the six steps framework provided by Braun and Clarke (2006). As mentioned by Braun and Clarke, a theme reflects some valuable information from the data to answer the research objective important. Thus, the data were sorted into two main parts, labeled Category 1 and Category 2, which matched the two main research objectives. Then the sub-categories were clarified according to the research questions. In each sub-category, the vast amount of data obtained was first transcribed, then examined for identifying “codes,” which were then classified into sub-themes and further into themes. The researcher used theories and existing literature to review, identify, and categorize the themes from the sub-themes of the data. The emerging data categories were checked by two experts in behavioral science.

Figure 1: An Overview of the Categories and Sub-categories of Research Findings



The subsequent sub-sections report the main findings of this research as bifurcated into two categories with participant quotes to support the evidence. The names of the participants were kept confidential and addressed with given codes for students, such as S1, S2, etc.

Category 1: Student experiences during the pandemic

The experiences of the research participants during the pandemic were analyzed in three sub-categories: a) perceived challenges of the university students; b) support provided by the universities for the well-being of the students; and c) mental health resources and support for the students.

For the first sub-category, only the experiences of the ten student participants were recorded. The students were asked: "What are the main challenges you faced as a university student because of the ongoing COVID-19 pandemic?" The responses were coded, and six emerging themes showed the wide impact area, such as at the psychosocial level, financial level, learning, and so on. For instance, the psychosocial impact of the pandemic was deeply felt by students; S1 said, "I worry about going out, so I try to stay by myself to be safe." Another student, S4, said: "I feel the problem was the loss of connection and relationships between teachers and my classmates and friends at university." University support was also impacted, as S3 shared: "I feel that the information was not shared in a timely manner sometimes."

For the second and third sub-categories, the research question was: "How did the university support the students' mental health and well-being during this time?" Triangulation of information was done to obtain a deeper understanding of this issue, and data were obtained from two groups: ten student participants and nine faculty participants. Universities offered a wide range of support; one of the most essential mentioned was vaccination support. A head of department (HoD2) shared, "Our university opened a vaccination center and offered free vaccines to students and all members of the communities." This was verified by faculty (Fac1), who said, "At a difficult time, the university provided vaccination for all graduate students"; and likewise, by students such as S1, S4, and S5. Teachers adapted to using online media to give support, such as shared by a program head (PH1), who said, "Most students could contact me any time...I am a digital native... I use social media apps like Line and respond quickly."

Data were classified into six themes for the overall support for the well-being of the students and five themes for the mental health support of students. The emerging data has been consolidated in a summarized form for ease of understanding and is shown in Table 2 for this Category 1.

Table 2: Emerging Themes and Sub-Themes about the Experiences of University Students During the COVID-19 Pandemic

Sub-Category	Themes	Sub-Themes
1.1. Perceived challenges of the university students	Psychosocial impact of the COVID-19 restrictions and lockdowns	<ul style="list-style-type: none"> - COVID-19 related worry: affected life in general - General stress in life: affected life and also studies - Experiences of anxiety and depression: in some aspects of life - Loneliness and social isolation: unable to socialize with other students and teachers, etc.
	Financial constraints	<ul style="list-style-type: none"> - The cost of living went up due to staying at home. - The financial plan of studying was negatively impacted.

Sub-Category	Themes	Sub-Themes
1.2. Support provided by the universities for the well-being of the students	Impact on teaching and learning support and structure by university	<ul style="list-style-type: none"> - Not enough money to buy health insurance or vaccines. - Not enough money to <i>live on my own</i> - University academic processes took longer. - Delay in online processes; getting online documents processed took longer. - A problem in finding answers from supporting staff: could not find/ get answers from academic support staff to help solve problems or answer questions
	Impact of online learning	<ul style="list-style-type: none"> - Adjustment to learning in an online classroom: Not knowing how to adjust to online classes. - Lack of attention for long classes - Limited time for interacting with teachers and co-students. - Lack of resources to finish data collection for research
	Change in the quality of relationships	<ul style="list-style-type: none"> - Changed relationships between students and teachers. - Lack of closeness between students
	Work-life balance issues	<ul style="list-style-type: none"> - Work-life balance problems: such as spill-over of work to studies - It took longer to manage personal life issues (such as visas for international students)
	Financial support from the university and faculty	<ul style="list-style-type: none"> - Universities reduced the tuition fees: by up to 10% in 2020 and waived registration fees. - Faculty provided extra funding and scholarships for those in need - Universities offered support for COVID-19 patients (e.g., 5,000 Thai Baht was given to one university)
	Structural support from the university's graduate school	<ul style="list-style-type: none"> - Free internet packages to study online - Change to online submission of documents. - Adapt to online thesis proposals and report submissions (such as an <i>i-thesis</i> policy) - Provide online webinars and training for using online systems and university structures.
	Faulty and teacher support	<ul style="list-style-type: none"> - Teachers immediately changed teaching to online classes. - Ease of guidelines to submit assignments. - Contacting teachers on the <i>Line</i> app. - Online exams and proposals were organized. - Students could borrow laptops from their faculty
	Healthcare support and vaccination programs	<ul style="list-style-type: none"> - Vaccination Program run by the university. - Health coverage for students who got infected. - Hospital care provided in university hospitals/ clinics. - Health-related exemption from deadlines.
	Relevant communication from the university about the pandemic	<ul style="list-style-type: none"> - Public relations from the university to share relevant information about the COVID-19 pandemic and the number of infected. - Use of social media for communication

Sub-Category	Themes	Sub-Themes
	Library support	<ul style="list-style-type: none"> - Ease of books delivery by the library - Online training for usage of software and search of a database
1.3. Mental health resources and support for the students	Counseling and mental health support provided by the university	<ul style="list-style-type: none"> - An online counseling facility was made available. - Group therapy for students was provided. - Free use of mental health applications
	Faculty-level psychological support	<ul style="list-style-type: none"> - Some faculty (like the psychology department) offered counseling workshops. - Offered one-day workshops to cope with stress from a positive psychology approach. - During classes, teachers asked students about their health and vaccine status
	Teachers provided psychological support	<ul style="list-style-type: none"> - Online access to students through social media apps - Check-in about well-being with students before the classes. - Gave flexibility in homework deadlines and requirements
	Student empowerment and peer support to manage stress	<ul style="list-style-type: none"> - Launch the "Friend helps a friend" program to encourage students to help each other. - Students initiated the creation of online groups on social media apps to support each other. - Curriculum teachers encouraged students to develop workshops to offer others support (e.g., growth mindset workshop)
	Shared tools and communication for mental health	<ul style="list-style-type: none"> - University did public relations using social media and websites to share information about mental health support, such as counseling services. - Launched special workshops and programs on mental health awareness and issues of concern

Category 2: Recommendations for supporting mental health and well-being for building a resilient workforce for future

The second category of findings (see Figure 1) was related to the second research objective that sought to explore the viewpoints of the research participants about providing mental health and well-being support to students at universities to build a resilient workforce for the future. The data were organized into two sub-categories: a) recommendations for fostering well-being and mental health at the university in the future; b) the meaning of these linkages between support and developing resilience for future workforces.

For the first sub-category, data were obtained from two university groups: ten student participants and nine faculty participants.

The participants were asked: "Based on your experience, what recommendations would you give to a university to support the well-being and mental health of the students during a crisis like this pandemic?" When examining the responses for this first sub-category about fostering well-being and mental health, data could be differentiated into seven themes, which can be

classified into three levels of impact as listed in Table 3. These recommendations, as identified by the participants, were categorized at various levels, including:

1. Faculty/ Teacher Level Themes
 - Theme 1: Maintain and monitor data on the mental health status of students.
 - Theme 2: Mental health check-in by teachers during classes
2. University/ Faculty Level Themes
 - Theme 3: University policy should focus on mental health literacy.
 - Theme 4: Mental health support services need to be strengthened.
 - Theme 5: Develop capacities of university personnel to support mental health.
 - Theme 6: Set up infrastructure for mental health support during a crisis.
3. Health Clinics and Counseling Services
 - Theme 7: Enhance mental health supporting organizations and services.

For the second sub-category, the participants were asked: “In your opinion, how is supporting the mental health and well-being of university students important to build resilience in the future workforce?” For this, the researcher decided to seek additional opinions from another relevant group. Thus, interviews with four professionals working in private organizations in Thailand were taken to get an understanding of their perspective in an actual work context.

There were two emerging themes from the participants' responses: 1) The significance of university support in developing resilience; and 2) how mental health and well-being support enhances resilience. For the first theme, participants shared how they saw the links between university support and building resilience. For instance, one student (S1) said, “happy mind has effective results... leading to enhanced performance.” While an international student (InterS2) said, “It is useful if university institutions show support; it shows they care.” A faculty member said, “Supporting well-being in some ways can help resilience” (Fac1). As a head of the department said, it shows “how to deal with uncertainty” (HoD1).

The second theme emerging in this category was the “ways in which well-being support enhances resilience.” The participants' responses were coded into seven sub-themes: cognitive flexibility; adaptability, challenging the status quo; being willing to change one’s mindset; raising capacity to deal with uncertainty; awareness of mental health; and knowledge to take care of oneself.

The emerging data for Category 2 of the research findings are summarized in Table 3.

Table 3: Emerging Themes and Sub-themes about Recommendations for Building Resilient Workforce for the Future

Sub-Category	Themes	Sub-Themes
2.1. Recommendations for fostering well- being and mental health at universities	<i>Faculty/ Teacher Level</i> Maintain and monitor data on the mental health status of students	- Survey stress levels in students regularly and not just in times of crisis. - Collect data on mental health indicators. - Monitor regularly to check for high-risk cases. - Maintain and monitor data on suicide and other severe mental health cases
	<i>Faculty/ Teacher Level</i>	- Train teachers to do a “check-in” before teaching. - Train teachers to look for “red flags” regarding students' mental health so they can refer them to

Sub-Category	Themes	Sub-Themes
2.2. Linkages between support and resilient workforce	Mental health check-in by teachers during classes	contact a counselor (if possible/ or student is willing).
	<i>University/ Policy Level</i> University policy should focus on mental health literacy	<ul style="list-style-type: none"> - Take mental health seriously (problems such as depression and suicides should be discussed) - Share tools/ techniques to help students cope with stress and challenges. - Faculty-level workshops to enhance mental well-being (such as positive psychology approaches using PsyCap (HERO) to promote inner strength). - Universities should advertise psychological support services for mental health, especially during the COVID-19 pandemic and at other times of crisis.
	<i>University/ MH Support Services Level</i> Mental health support services to be strengthened.	<ul style="list-style-type: none"> - University mental-health care units and Counselling services should be expanded (more staff) - Counseling should be done by appointing professionals and not teaching faculty with other workloads. - Train additional staff to provide support, such as those interested in voluntary work
	<i>University/ Faculty Level</i> Develop capacities of university personnel to support mental health.	<ul style="list-style-type: none"> - Train teachers/thesis advisors to support their students. - Train supporting staff to understand the students and respond to support them. - Provide mental health support to staff and teachers.
	<i>University/ Faculty Level</i> Set up infrastructure for crisis	<ul style="list-style-type: none"> - Set up staff response centers in times of crises. - Train student support groups - International students get special support. - Flexible academic systems for foreign students
	<i>Health clinics and Counseling services</i> Enhance mental health support organizations and services	<ul style="list-style-type: none"> - Develop together at the university by including staff, academics, and professionals in mental health. - Train professional nurses or psychologists for additional support during a crisis - Track and provide to at-risk groups. - Create safe psychological spaces
	The significance of university support in developing resilience	<ul style="list-style-type: none"> - Concern for well-being and mental health is increasing in both employees and employers. - Soft skills training for resilience can be practical. - Creates awareness and acceptance that everything is changing, such as technology, customers, way of working, etc. - Adapting is vital to the fast pace of change in business.
	Ways in which WB support enhances resilience.	<ul style="list-style-type: none"> - Develops cognitive flexibility to change and see various viewpoints. - Adaptability (behavioral and mental), adjusting to changed work situations, ability to deal with uncertainty. - Challenging the status quo

Sub-Category	Themes	Sub-Themes
		<ul style="list-style-type: none">- Be willing to change one's mindset.- Raise capacity to deal with uncertainty.- Awareness of mental health and common problems like anxiety and depression.- Having the knowledge to take care of oneself when in need or stressed

Discussion, implications, and conclusion

This qualitative research provides meaningful insights into the experiences and impacts on the well-being of university students in Thailand during the pandemic. Furthermore, after triangulating data collected from students, university faculty, and working professionals, recommendations were developed for supporting students' mental health and well-being to create a resilient workforce for the future. As noted by researchers during the pandemic, there is great value in using a qualitative approach as it gives voice to the participants not heard before (Ivbijaro et al., 2020; Mathias et al., 2020; Mohan et al., 2023).

The results for the first objective of this research showed that the student participants in the higher education context in Thailand during the COVID-19 pandemic experienced many challenges related to their psychosocial well-being, financial constraints, teaching and learning support from a university, adapting to online learning, change in the quality of relationships with teachers and peers, and other work-life balance issues. This led to some mental health problems such as stress, anxiety, and in some cases, loneliness and depression. Further research supports these findings, such as Mao et al. (2021) found in their systematic review that college and university students showed increased negative emotion, anxiety, and depression. Heightened stress levels, anxiety, and depression were also found by Paz et al. (2022) in their systematic review of 47 studies of medical students worldwide.

This research found that Thai universities offered comprehensive support to the students during the pandemic, and some of these measures were quite effective in supporting mental health and well-being, such as financial support, free vaccines, teacher support, and library books support. As these findings reflect both student and teacher and university level perspectives, it may be recommended that these measures could be included as pathways to support student well-being in times of similar health crises.

The findings of the second objective showed that the best practices that can support the mental health and well-being of students during regular times and especially during a crisis were a combination of resources offered at the faculty and teacher level, along with the university level and the provision of mental health resources and counseling facilities. Specific recommendations that emerged were about training teachers and staff to support the well-being of students and more focused policy-level support for mental health at the university level. Another qualitative research in the context of American students also found that it would be helpful if the university communicated mental health resources and the utility of those resources (Kaur et al., 2022). In this research, the international students who were coming to Thailand for the first time expressed their difficulties during the pandemic. Liu et al. (2022) underlined the urgency and need to address college students' mental well-being, mainly by providing mental health services to vulnerable groups such as "students coming from low-income, underrepresented minorities, and first-generation students." Thus, more

research could investigate the needs of particular students, such as international students, those differently abled, or those from low socio-economic status.

Emerging results for the second objective of this research showed that the participants could identify the linkages between well-being support provided by universities to students and developing a resilient workforce. The subsequent analysis also indicates the perceived impacts of the university support for well-being for enhancing resilience through various aspects such as fostering cognitive flexibility and adaptability, being enabled to change one's mindset, and having mental health awareness. These are valuable insights not just for Thai students but also for others in similar contexts. A systematic review by Paz et al. (2022, p. 8) reiterated the value of such "protective factors against mental health issues," which should include "the availability of coping resources" and "personal resilience." Moreover, as reported by Liu et al. (2022), universities should consider providing resources for resilience-promoting factors to support students as they return to campuses.

To synthesize the emerging pathways from this research, the most important is building on existing resources for supporting students' mental health and well-being. Versteeg and Kappe (2021) established this in the context of students in the Netherlands by reporting that university support could be a protective factor for students' mental health during the pandemic. Abrams (2022) noted that "out of the box" strategies need to be provided widely, such as "embracing approaches such as group therapy, peer counseling, and telehealth." Kratt and Houdyshell (2020) emphasized that the current crisis provides an opportunity to enhance innovative models of care for mental health and well-being for campus administrators and policymakers.

The second emerging pathway is the need to put mental health at a focal point in university student support policies. This stance is also supported by recent research studies conducted during the pandemic, as reported in a systematic review by Campbell et al. (2022) or the context of Thai universities by Rhein and Nanni (2022). The third suggestion is that emergency response channels for mental health and well-being are set in policy guidelines so that these can be applied rapidly and effectively when responding to future crises and disruptions. Pandya and Lodha (2022) reported in their scoping review that this could include setting up crisis communication centers and resources.

The fourth pathway recommended is to provide basic mental health literacy programs for students in conjunction and collaboration with mental health professionals, teachers, staff, and university administrators. Setting such programs helps improve knowledge and awareness (Kratt & Houdyshell, 2020).

Finally, advocacy to raise awareness about setting systems to support students' mental health and well-being could be the pathway to developing a resilient workforce for the future.

Implications

The implications of this research could be valuable for faculty members and administrators, researchers, and policymakers in higher education. The research-based evidence about the emerging pathways could be utilized in developing policies and measures by higher educational institutes to support the mental health and well-being of students in Thailand. A recent study supports the findings of this research that there is a growing need to support Thai university students' mental health and well-being (Rhein & Nanni, 2022). Further studies

could be conducted to examine the impact of these suggested pathways by exploring the perceived benefits, the gaps in practice, the challenges, and the resources needed to address the gaps.

One limitation of this research was that the scope of the study could only include the voices of some stakeholders from Thai universities since a qualitative approach was used. Future researchers could adopt mixed methods or other research designs to have more participants and use other forms of analysis, such as systematic review and meta-analysis (Mao et al., 2021). Another limitation is that the interviews were conducted only in English and may have limited the involvement of other participants. Further, it is recommended that multi-disciplinary teams of researchers may investigate the growing concern of mental health among students in higher education, which can be essential to address the multisystemic complexities of resilience (Ungar & Theron, 2020).

Conclusion

This research provides meaningful insights for administrators of higher education institutes in Thailand and policymakers and urges them to review policies along with infrastructure to support the mental health and well-being of students, which are available not only at the time of crisis but also regularly. The findings of this research could contribute to developing the future human capital at universities through shared pathways to enhance mental health, well-being, and resilience among university students. These preventive and protective measures could help improve capability and adaptability to deal with the disruptions in life and changes in the workplace and, thus, ensure pathways to bounce back and thrive.

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