



# BMJ Open Students' perceptions and experiences of an online well-being programme: a phenomenological study protocol

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## ABSTRACT

**Background** The pandemic has ensued challenges across all sections of the human population such as livelihood and educational changes, which involve the abrupt shift to online learning, immensely affecting the students' well-being. Negative health consequences of e-learning among students stem from the increased demand for new technological skills, productivity, information overload and restriction of students to spend time with their peers.

**Objective** To explore the experiences of the students from the University of Santo Tomas—College of Rehabilitation Sciences (UST-CRS) who participated in the online well-being programme.

**Methodology** A phenomenological design will be used to determine the participants' perceptions and experiences. Purposive sampling will be used to recruit 8–10 undergraduate students from UST-CRS ages 18–22 years, who participated in the well-being programme, and completed the study's quantitative counterpart. Semistructured, in-depth questions will be used to conduct a focus group discussion. The transcripts will be analysed using thematic analysis via the NVivo V.12 software.

**Ethics and dissemination** The study protocol is approved by the UST-CRS Ethical Review Committee (Protocol Number: SI-2022–034 (V.4)). It will be implemented in accordance with the Declaration of Helsinki and the National Ethical Guidelines for Health and Health-Related Research, and Data Privacy Act. Findings will be published in accredited journals and presented in related scientific fora.

**Registration ID** PHRR230214-005419; Philippine Health Research Registry.

## INTRODUCTION

All facets of the human population faced difficulties as a result of the pandemic. This includes notable changes in livelihood and education, such as the abrupt shift to online learning, which had affected the well-being of students. According to the WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.<sup>1</sup> Physical well-being refers

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The research will use a descriptive phenomenological approach using available online tools to explore the participants' perceptions and experiences specific to students undertaking rehabilitation science programmes.
- ⇒ The study will carefully select participants who were able to complete the novel online well-being programme for undergraduate rehabilitation science programmes.
- ⇒ The study will use externally validated questions that will focus specifically on the relevant perceptions and experiences of students who underwent the online well-being programme.
- ⇒ The study will use a rigorous thematic analysis approach, a crucial method used to comprehend a collection of experiences, thoughts, or behaviours within a data set.
- ⇒ The generalisability of the study may only be limited to participants and settings with similar characteristics as the study.

to the function and operation of the body, while psychological well-being pertains to one's thoughts, feelings and emotions. Moreover, social well-being measures a person's response to the environment including relationships with others.<sup>2</sup>

Prior to the pandemic, the prevalence of well-being issues has already been observed. However, these have spiked in college students as online learning continues to be the only alternative solution amidst the pandemic. The increased need for new technology skills, productivity, information overload and restrictions on students' ability to interact with their peers are the causes of the detrimental effects of e-learning on students' health. These complications vary from one factor to another, influencing a person's susceptibility to well-being issues. For instance, a number of studies reported high rates of disorders

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among health science students, given the complexity of the educational process they need to go through.<sup>3</sup> At present, no clinical guideline is available for the best and recommended practices for digital programmes. However, several systematic reviews have been published to determine the level of effectiveness of the available programmes. The use of multiple approaches like cognitive-behavioural therapy, psychological health literacy, mindfulness and peer support is effective in improving perceived stress and burnout levels.<sup>4</sup> A similar study has used a weekly online modular approach in delivering such intervention techniques to their participants asynchronously through content developed with professionals to promote the physical and mental well-being of the participants by providing exercise programmes, group aerobic exercises, emotion expression, social support, creating healthy relationships and more.<sup>5</sup> Additionally, another study that used a simplified Mindfulness-Based Stress Reduction protocol revealed minor to medium effects on participants' improved mindfulness.<sup>6</sup> According to a survey of college students at public, private, community and online institutions, 73% of them had psychological health crises at some point.<sup>7</sup> These crises were brought on by triggers like stress attacks, feelings of homesickness or loneliness, and extremely high levels of anxiety, panic, and depression about their academic and personal lives. Although no specific data show the prevalence of well-being issues among Filipino college students, the Department of Health estimates that at least 3.6 million Filipinos face psychological health issues as of early 2020.<sup>8</sup>

Well-being programmes for general adult populations have been conducted to mitigate the growing rates of well-being problems such as one study introduced psychological health promotion and coping strategy-based group workshops.<sup>9</sup> College students with typical psychological health issues have the option of receiving treatment through digital psychological health interventions.<sup>10</sup> Physical and psychological activities that are provided online may be included in a virtual well-being programme.<sup>5</sup> The combination of physical and mental well-being activities provides a more holistic approach in dealing with better promotion of health to students since the two factors, physical and mental health, were determined to be correlated with each other in relation to the students' well-being.<sup>5 10</sup>

The literature on the effectiveness of online well-being programmes specific to rehabilitation science students is still in its early stages of development. Currently, there is a lack of related literature from the Philippines, as most studies were conducted internationally, which is critical since it is challenging to relate international components to a local system. This is important in identifying how specific cultures, traditions or practices may influence well-being. Additionally, most studies were quantitative, which mostly discussed assessing the participants' well-being and the efficacy of interventions.<sup>11–15</sup> Thus indicating a need for descriptive phenomenological design, which aims to seek shared and common characteristics

of a phenomenon. A phenomenological study should be undertaken to comprehensively describe how the qualitative factors related to the impact of learning the programme align with participants' perceptions and experiences.

Most of the research literature gathered was focused on a general population instead of a specific group (eg, rehabilitation science students).<sup>16 17</sup> Specificity to a particular population is crucial in assessing the perception of a population as these would differ from course to course depending on the academic demands. For instance, stress levels in medical students were higher, primarily attributed to studies.<sup>18</sup> Considering that stress can lead to interruptions on both physical and psychological health, this must be highlighted with the descriptive experiences of these students undergoing their studies. This is important in identifying which factors affect the outcomes of the research. Moreover, it was observed that most literature focused on psychological health rather than other aspects of well-being. Since the sole focus of other studies is on psychological health, factors such as stress, anxiety or mood changes were only emphasised and did not include physical aspects. Although both are indisputably relevant independently, recognising the association of physical and psychological health in contributing to an individual's holistic well-being is significant.

The study aims to explore the experiences of the students from the University of Santo Tomas—College of Rehabilitation Sciences (UST-CRS) who participated in the online well-being programme. It will focus on identifying the experiences of the participants, including their perspectives on their experiences regarding the online well-being programme.

## METHODOLOGY

### Study design

The study will use a descriptive phenomenological design to describe the lived experiences of individuals regarding a phenomenon and serves to understand their common or shared experiences of a phenomenon.<sup>19</sup> Through this, the researchers can understand the individual's perceptions, perspectives and understandings of a particular phenomenon.<sup>19</sup> Other studies about implementing a well-being programme also used a phenomenological study design to examine the effects of a peer-led intervention on the well-being among university students.<sup>11</sup>

To ensure transferability for publication, the study will abide by the Consolidated Criteria for Reporting Qualitative Research guidelines.<sup>20</sup>

### Study participants

Table 1 shows the participants' criteria. Officially enrolled undergraduate students of the UST-CRS aged 18–22 years who are currently in their first and second term (A.Y. 2022–2023) studying the programme of bachelor of science in physical therapy, occupational therapy, speech language pathology or sports science who have

**Table 1** Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
1. Undergraduate students of UST-CRS 2. 18–22 years old 3. Officially enrolled in their first and second term (A.Y. 2022–2023) 4. Must have participated in the online wellbeing programme	1. Participants who have psychological issues, musculoskeletal conditions, and visual, hearing or cognitive impairments.
UST-CRS, University of Santo Tomas—College of Rehabilitation Sciences.	

participated the 6-week online well-being programme are eligible participants in the study. The online well-being programme, which was conducted in a feasibility study, has been created specifically by health professionals for UST-CRS students.<sup>5</sup> It is composed of mental and physical activities that are delivered using an educational and modular format.

### Patient and public involvement

None.

### Recruitment

Students who meet the requirements and have finished the pretest and post-test forms of the quantitative counterpart entitled 'Effectiveness of an Online Wellbeing Program for UST CRS Students: A Quantitative Study' will be included. Participants in the quantitative study will be informed that they will be contacted to join the qualitative phase of the study through the informed consent form of this study's quantitative counterpart. The list of students will be acquired through the informed consent form since those who signed up for the quantitative study have agreed that their names will be included for selection for the qualitative study.

The said participants must not fall under the exclusion criteria in the quantitative study counterpart who may not join the interventions due to psychological issues, musculoskeletal, visual, hearing or cognitive impairments. The exclusion criteria are based on the initial feasibility study conducted for the programme, which consists of two questionnaires, namely the Physical Activity Readiness Questionnaire (PAR-Q) and the Counseling Center Assessment of Psychological Symptoms (CCAPS-34). These screening tools assess individuals in their readiness to participate in the study. The PAR-Q questionnaire contains several questions that require a 'yes' or a 'no'. An answer of yes to any of the questions would require the participant to consult with their physician and obtain a clearance form to continue participation. The CCAPS-34 questionnaire incorporates the distress index and screens for academic stress and psychological symptoms among college students. Participants with high results of being at risk for suicide will be excluded.

Since the study will recruit students from the quantitative study who participated in the well-being programme, setting target participants per programme will not be feasible. Students who underwent another well-being programme in the past or have received it after the training will affect the results. Hence, it will be considered as a separate theme or subtheme if ever it will emerge in the analysis.

### Sample

A sample size of 8–10 participants is adequate to conduct a focus group discussion (FGD), the primary tool of this study. As the study is part of a large-scale project, the sample size will be based on the final number of participants of the quantitative counterpart of the study. The ideal size of an FGD is 8–10 subjects as a larger group in an FGD may limit the detail of some responses because participants may feel pressure to share airtime with others.<sup>21</sup> Conversely, participants in smaller groups may feel uncomfortable pressure to talk.<sup>22</sup> No stratification will be done to cater to the general physical and psychological well-being of different students from different year levels and programmes. This will enable the participants to receive different insights and will encourage them to broaden their sharing of experiences. To ensure the study's quality, data saturation will be attained through constant monitoring of data and observation of repeated themes in multiple FGDs. The researchers will recruit the minimum number of participants needed for FGD. Target participants will get invitations via their UST email addresses, containing information on the research and its intention for recruitment. Each prospect will be given a maximum of 1 week to respond.

### Sampling

The study will employ a purposive sampling method. This entails finding and choosing individuals or groups who possess significant expertise or experience in a specific phenomenon that is of interest.<sup>19</sup> This type of sampling is significant to gain more information on exploring the participants' experiences, which would lead to precise results of the study. The participants will be notified through email regarding the selection process, as this medium also serves as the main communication tool among researchers and participants.

### Setting

The study will be conducted in the UST-CRS. Due to the implications of COVID-19, all methodological procedures will be conducted online. FGDs are to be conducted via video conferencing tools such as Google Meets or Zoom. The use and potential of these platforms as a medium for qualitative data collection is highly vitalising due to their relative usability, affordability, data management features, and security options.<sup>23</sup>

### Focus group discussion

FGD is commonly used for qualitative studies because it offers a platform in gathering various views regarding



a certain area of interest.<sup>24</sup> The FGD will be conducted through Zoom and Google Meets and will approximately last 120 min, including a 10 min break. The FGD will include one moderator, one assistant moderator, one note taker, one observer, and three researchers who will review and verify the transcript. Multiple FGDs will be conducted until data saturation is obtained. Two to three FGDs is enough to identify all of the most prevalent themes within the data set.<sup>25</sup> However, additional FGDs will be conducted if data saturation is not reached. Data saturation is reached when participants have no additional information or input to give.<sup>15</sup>

### Development of guide questions

Development of guide questions will encapsulate the study's objectives in determining the participants' perceptions and experiences. The initial guide questions consist of semistructured, open-ended questions that centre on the students' perception and experiences in the 6-week well-being programme. These questions are designed by the research team and are adapted from a study by Foster.<sup>26</sup> Four main questions with one to two probing questions each item comprising the guide questionnaire aim to focus on eliciting more detailed responses from the participants. These will be reviewed and validated by an independent qualitative research expert with previous experience in FGD facilitation, trainings on health and education research and publications involving qualitative methodologies. Revisions will follow in accordance with the expert's comments and suggestions.<sup>27</sup> Below are some example questions that will focus on the perceptions and experiences of the participants:

1. What experiences have you had that influenced your consideration of participation?
  - a. Probe: Have you had success with your health and wellness goals since choosing to participate in the well-being programme?
    - i. Probe: Can you enumerate those successes and why did you say that those are the effects of the well-being programme to you?
  - b. Probe: Do you feel there is anything else that should be offered regarding the well-being programme that would increase participation?
    - i. Probe: If yes, kindly give your suggestions. If not, why did you say so?

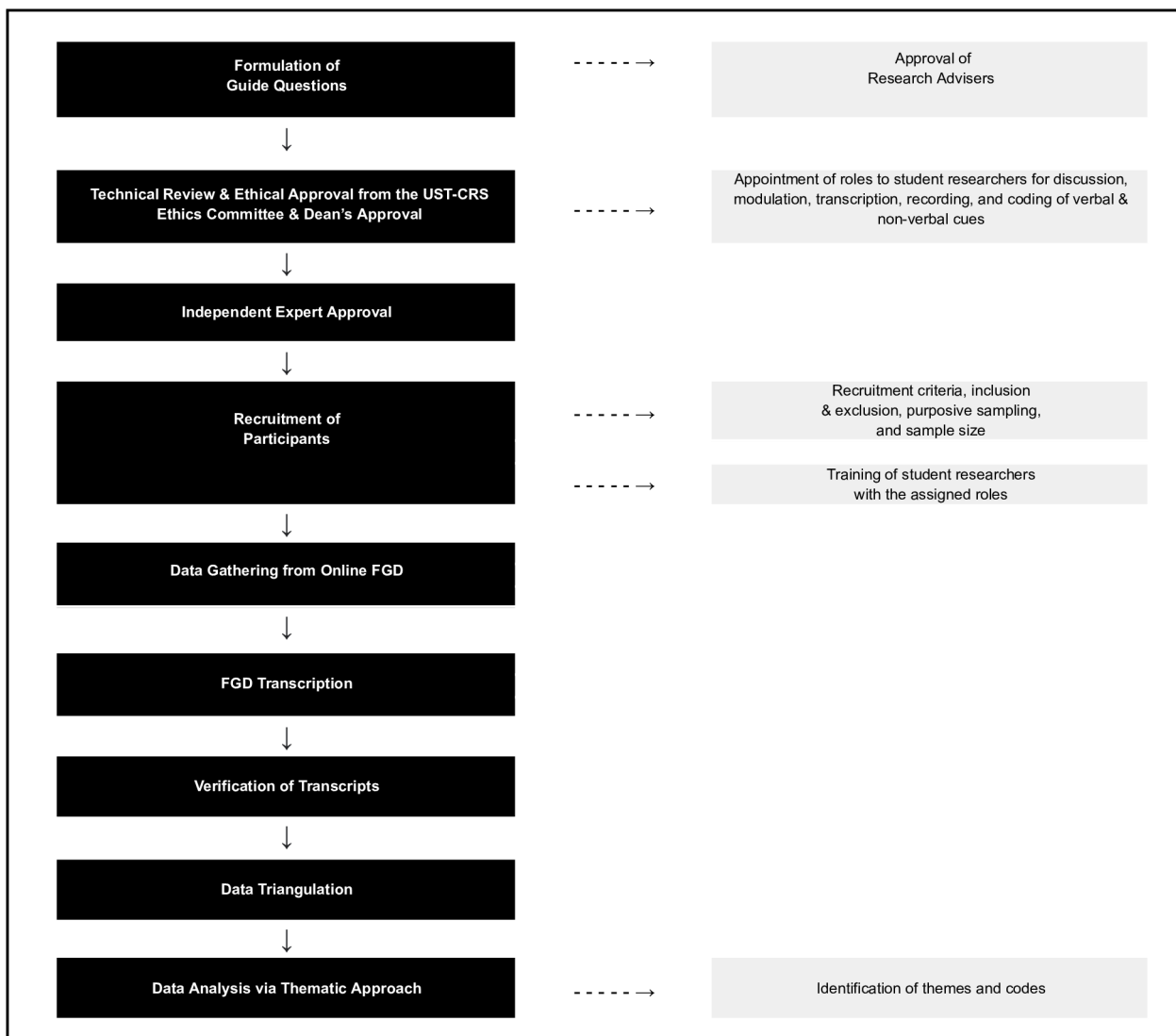
### Data gathering procedures

Figure 1 shows the process of data gathering. Data gathering will start with the formulation of guide questions applicable to the phenomenological study design. The questions formulated will be validated by an independent expert. Simultaneously, the principal moderator of the study will be assigned to a faculty author who is a female physical therapist and a faculty researcher with a Master's Degree in Health Professions Education with 10 years of experience who is currently on leave and does not have a teaching load within the university. Moreover, the study will be guided by three more authors, one male and two

female physical therapists with a master's degree in physical therapy, who had previous training, experiences and publications on conducting qualitative research. The discussion will be facilitated by the faculty authors, and participants will be questioned about their perceptions and experiences of the programme. The moderator will receive assistance from physical therapy students who have completed training in the Principles of Health Research Ethics and Good Research Practices. Student researchers will take on the roles of assistant moderator, note-takers, observers and transcript reviewers or verifiers. The note-takers will note the participants' verbal and non-verbal expressions during the discussion as well as any critical points to create follow-up questions as needed. The researchers will maintain awareness and openness by taking notes regarding the participants' personal feelings, biases and insights immediately after the interview by asking for clarifications when needed to ensure confirmability.<sup>28</sup> The faculty author will be moderating the FGD by following an FGD Guide, which consists of the following criteria: knowledge of the topic under discussion, proficiency in the local language, cultural sensitivity, not acting as a judge or teacher, does not condescend to respondents, inability to agree or disagree with what is said, and not putting words in the participants' mouths, has a genuine interest in people, sensitivity to men and women, politeness, empathy and respect for participants.<sup>29</sup>

Student researchers will undergo a training pilot in preparation for the actual FGD with participants. Pilot training, which includes doing a test run on the video conferencing tool, rehearsing the flow of FGD, and preparedness of the faculty and student moderators, will also be conducted by the research team to ensure further rigour of the FGD process. Three key areas will be tested during the training: clarity of instructions, participant tasks and questions and the research timing.<sup>29</sup> Focusing on these will ensure that the participants are not misled by the questions or confused by them, and that the discussion's workflow and time are appropriate. Moreover, student researchers will undergo a short intensive online course regarding 'Qualitative Data Collection Methods' offered by Emory University. The short course will present a detailed overview of qualitative methods of data collection, including observation, interviews and FGDs, which involves note-taking strategies, observation guides, development of effective question guides and transcription process.<sup>30</sup> A certificate will be given to the student researchers at the end of the course.

Prior to the FGD, consent will be requested from the study participants regarding the transcription process. The FGD will be led by a faculty moderator, assisted by the student researchers, after undergoing pilot training. It is expected to last for 2 hours. An orientation prior to the FGD will be conducted to inform participants about the expected flow, participation and their right to ask questions or not answer during the discussion, and obtain consent for video-recording. A recording will be



**Figure 1** Process flow of the methodology of the study. UST-CRS, University of Santo Tomas—College of Rehabilitation Sciences.

sent to the assigned transcriber. Following the FGD, the researchers and participants will review the transcripts for analysis and verification. There will be member checking by asking participants to verify their transcribed responses from the FGD and obtaining feedback from these participants. Attendance sheets and diaries from the well-being programme will be collected as records review for data triangulation to verify the responses of the participants. The diaries will serve as a way for the participants to document what they experienced during the well-being programme. This may come in a format of logs made after each session. The diaries will contain the participant's experience of the wellness programme. These come in the form of their written thoughts and opinions during, and after the well-being programme.

Strategies such as multiple-level data analysis, credibility, dependability, transferability and confirmability will be used to ensure rigour. The credibility of the data gathered will be checked through the following methods:

- Member checking by asking participants to verify their transcribed responses from the FGD and obtaining feedback from these participants.
- Data triangulation by using data from diaries and attendance records to verify the responses of the participants.

Dependability will be ensured by defining the main purpose of the study, along with how and why the participants will be selected, explaining the data gathering procedures and data interpretation. The study will also have an outside researcher conduct a thorough audit to look at the methods used to gather, analyse and interpret the data. To ensure transferability, the study will provide a clear and comprehensive overview of their data-collecting experiences and a thorough description of the demographics and geographical boundaries.

Since the research authors are students and have biases and own perceptions, by taking notes about participants' remarks and their own thoughts throughout

the interview, the researchers will practice reflexivity. Repeated interviews with the same participants, sustained engagement, members checking, triangulation, peer review, the formation of peer support networks and back talk groups, the keeping of a diary or research journal for 'self-supervision,' and the creation of an 'audit trail' of the researcher's thinking, judgement and emotional reactions are all techniques for maintaining reflexivity.<sup>30</sup>

### Data analysis

The study will use a thematic analysis approach. When aiming to comprehend a collection of experiences, thoughts or behaviours within a data set, thematic analysis proves to be a suitable and influential approach to employ.<sup>31</sup> The suggested six steps of Braun and Clarke's thematic analysis will be followed in this study, which involves becoming familiar with the data, assigning codes, developing themes, reviewing the themes, defining and labelling the themes and documenting the findings in written form. Adapting the data analysis procedures by Versales *et al.*<sup>27</sup> under the various themes that will emerge during the data analysis, the participants' responses will be coded using a variety of techniques, including word repetition, comparison and contrast, transitions, etc.<sup>27</sup> Any similarities and differences in the experiences and perceptions noted on the transcripts, including verbal and non-verbal cues, will be accounted for to group codes which will generate themes. Checking of codes and categories that are connected will be based on the coding manual. Subsequently, themes will be reviewed repeatedly to identify their relevance with the research objectives. Frequent reviewing of themes will help the researchers thoroughly analyse the data collected and develop a narrative, which conveys points of outcomes of the study. NVIVO V.12 software will be used to determine and visualise the weights of codes and themes identified.<sup>32 33</sup>

### ETHICS AND DISSEMINATION

The study protocol has been approved by the UST-CRS Ethical Review Committee (ERC) (Protocol Number: SI-2022-034 (V.4)). It will be implemented in accordance with the Declaration of Helsinki and the National Ethical Guidelines for Health and Health-Related Research, and Data Privacy Act (NEGHHR) 2017 by the Philippine Health Research Ethics Board. Since student participants are considered to be a vulnerable group in this study, to prevent any forms of coercion from taking place, the recruitment process as well as the implementation of the participant information sheet and informed consent form will be carried out by the student researchers and not by their faculty co-authors. Findings will be published in accredited journals and presented in related scientific fora

### Project duration

This study is projected to run for a standard duration of one academic year, starting from the second term of

A.Y. 2022–2023 to the first term of A.Y. 2023–2024 of the UST-CRS.

### Registration details

This study is successfully registered to Philippine Health Research Registry.<sup>34</sup>

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**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication** Not applicable.

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### REFERENCES

- 1 World Health Organization. Health and well-being. World health organization. 2022. Available: <https://www.who.int/data/gho/data/major-themes/health-and-well-being> [Accessed 25 Nov 2022].
- 2 Nivas S, Get Basic Idea. The health triangle – its importance and all you need to know. 2021. Available: <https://www.getbasicidea.com/health-triangle/>
- 3 Yusoff MSB. Associations of pass-fail outcomes with psychological health of first-year medical students in a Malaysian medical school. *Sultan Qaboos Univ Med J* 2013;13:107–14.
- 4 Ungar P, Schindler A-K, Polujanski S, *et al.* Online programs to strengthen the mental health of medical students: A systematic review of the literature. *Med Educ Online* 2022;27.
- 5 Escudra CJ, Chiong Maya A, Borhillo BJ, *et al.* Evaluation of an online physical and mental wellbeing program for UST CRS students: A feasibility study. Herdin:PHRR220301-004341, December . 2020Available: <https://www.herdin.ph/index.php/aggregate-report?view=research&layout=details&cid=4341> [Accessed 28 Jan 2023].
- 6 Jayewardene WP, Lohrmann DK, Erbe RG, *et al.* Effects of preventive online Mindfulness interventions on stress and Mindfulness: A meta-analysis of randomized controlled trials. *Prev Med Rep* 2017;5:150–9.
- 7 Ungar P, Schindler A-K, Polujanski S, *et al.* Online programs to strengthen the mental health of medical students: A systematic review of the literature. *Med Educ Online* 2022;27:2082909.
- 8 Department of Health. Your Mind Matters: Doh Calls For Unified Response To Mental Health, 10 October . 2020Available: <https://doh.gov.ph/press-release/YOUR-MIND-MATTERS-DOH-CALLS-FOR-UNIFIED-RESPONSE-TO-MENTAL-HEALTH>
- 9 Offredy M, Vickers P. *Developing a Healthcare Research Proposal*. Oxford, United Kingdom: John Wiley & Sons, 2013.
- 10 Centers for Disease Control and Prevention. HealthRelated Quality of Life (HRQOL). USA:Centers for Disease Control and Prevention; 2018. Available: <https://www.cdc.gov/hrqol/wellbeing.htm>
- 11 Viskovich S, Pakenham KI. Pilot evaluation of a web-based acceptance and commitment therapy program to promote mental health skills in university students. *J Clin Psychol* 2018;74:2047–69.
- 12 Manicavasagar V, Horswood D, Burckhardt R, *et al.* Feasibility and effectiveness of a web-based positive psychology program for youth mental health: randomized controlled trial. *J Med Internet Res* 2014;16:e140.
- 13 Kass AE, Balantekin KN, Fitzsimmons-Craft EE, *et al.* The economic case for Digital interventions for eating disorders among United States college students. *Intl J Eating Disorders* 2017;50:250–8.

- 14 Harrer M, Adam SH, Fleischmann RJ, *et al.* Effectiveness of an Internet- and App-based intervention for college students with elevated stress: randomized controlled trial. *J Med Internet Res* 2018;20:e136.
- 15 Ahorsu DK, Sánchez Vidaña DI, Lipardo D, *et al.* Effect of a Peer-Led intervention combining mental health promotion with Coping-Strategy-Based workshops on mental health awareness, Help-Seeking behavior, and wellbeing among university students in Hong Kong. *Int J Ment Health Syst* 2021;15:6.
- 16 Lattie EG, Adkins EC, Winquist N, *et al.* Digital mental health interventions for depression, anxiety, and enhancement of psychological well-being among college students: systematic review. *J Med Internet Res* 2019;21:e12869.
- 17 Fernandez A, Howse E, Rubio-Valera M, *et al.* Setting-based interventions to promote mental health at the University: a systematic review. *Int J Public Health* 2016;61:797–807.
- 18 Aamir IS. Stress level comparison of medical and Nonmedical students: a cross-sectional study done at various professional colleges in Karachi, Pakistan. *Acta Psychopathol* 2017;03:12–7.
- 19 Cresswell JW. *Qualitative Inquiry and Research Design* 2nd ed. London, United Kingdom: Sage Publications, 2016.
- 20 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19:349–57.
- 21 Krueger RA, Casey MA. Focus groups: A practical guide for applied research. 4th edn. New York: SAGE, 2008.
- 22 Central Connecticut State University. Office of institutional research and assessment, CCSU. Helpful Hints for Conducting a Focus Group, Available: <https://www.ccsu.edu/oira/assessment/files/FocusGroupsHints.pdf>
- 23 Onwuegbuzie AJ, Dickinson WB, Leech NL, *et al.* A qualitative framework for collecting and analyzing data in focus group research. *International Journal of Qualitative Methods* 2009;8:1–21.
- 24 Archibald MM, Ambagtsheer RC, Casey MG, *et al.* Using zoom Videoconferencing for qualitative data collection: perceptions and experiences of researchers and participants. *International Journal of Qualitative Methods* 2019;18.
- 25 Guest G, Namey E, McKenna K. How many focus groups are enough? building an evidence base for Nonprobability sample sizes. *Field Methods* 2017;29:3–22.
- 26 Foster C. Employee experiences towards workplace health and wellness programs: A phenomenological Study[Doctoral Dissertation]. 2021. Available: <https://www.proquest.com/openview/65ddebba7670be0c69c9c7c827c7c208/1?pq-origsite=gscholar&cbl=18750&diss=y>
- 27 Versales CR, Escudra CJ, Agustin GD, *et al.* Perceptions of UST-CRS faculty and students on the use of blackboard learning management system: a research protocol. *PJAHS* 2021;6.
- 28 Queens University of Charlotte. A guide to qualitative rigor in research, 12 May . 2022Available: <https://online.queens.edu/resources/article/guide-to-qualitative-rigor-in-research/> [Accessed 27 Oct 2022].
- 29 Escalada M, Heong KL. Focus Group Discussion, . 2009Available: <https://ricehopper.files.wordpress.com/2009/10/focus-group-discussion.pdf> [Accessed 20 Mar 2023].
- 30 Andes K. Emory University. Coursera; Qualitative Data Collection Methods, . 2023Available: <https://www.coursera.org/learn/qualitative-data-collection-methods#syllabus> [Accessed 20 Mar 2023].
- 31 Wright M, So N. How pilot testing can dramatically improve your user research. *Widerfunnel* 2022. Available: <https://www.widerfunnel.com/blog/pilot-testing-user-research/#:~:text=Pilot%20testing%20is%20a%20rehearsal,spent%20on%20any%20research%20project>
- 32 Braun V, Clarke V. *Thematic analysis. APA handbook of research methods in psychology.* Washington (DC): American Psychological Association, 2012.
- 33 Zamawe FC. The implication of using Nvivo software in qualitative data analysis: evidence-based reflections. *Malawi Med J* 2015;27:13–5.
- 34 Escudra CJ, Chiong Maya A, Nava JB, *et al.* Students' perceptions and experiences of an online wellbeing program: A phenomenological study [Philippine Health Research Registry]. *PJAHS* 2023;7.