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Erasmus Mundus Joint Master Degree
in Emergency and Critical Care Nursing

ERASMUS MUNDUS JOINT MASTER'S DEGREE IN EMERGENCY AND CRITICAL CARE NURSING (EMJMD NURSING)

A Feasibility Study of Psychosocial Intervention Pre-Clinical Program (PIPCP) to enhance the active coping among clinical nursing students in Emergency Room and Critical Unit amidst COVID-19 Pandemic in Indonesia and Scotland: A quantitative research proposal

Fialisa Asriwhardani
Student Number 40524651
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Master´s Thesis

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CERTIFY:

That the master's Thesis submitted by Fialisa Asriwhardani, entitled "**A Feasibility Study of Psychosocial Intervention Pre-Clinical Program (PIPCP) to enhance the active coping among clinical nursing students in Emergency Room and Critical Unit amidst COVID-19 Pandemic in Indonesia and Scotland: A quantitative research proposal**", carried out under our supervision in the Erasmus Mundus Joint Master Degree in Emergency and Critical Care Nursing, meets the necessary requirements to be approved as a Master´s Thesis.

And for the record, and for the relevant purposes, the present certification is issued in Edinburgh, on February 2nd , 2022.

Dr Ruth Paterson PhD, MPhil, FHEA, RN, V300 prescriber

MASTER'S THESIS SUPERVISOR

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Abstract

Background

Existing evidence stressed that the COVID-19 Pandemic had an effect on nursing students' mental health and well-being in clinical placement settings, particularly in ER and ICU rotation. The literature suggests that problem-based and emotion-based coping strategies may mitigate stress, yet it is unclear what impact these have on coping and how effective these interventions are in middle income compared to high-income countries.

Aim

This research proposal will test the feasibility of using a structured psychoeducation programme in Nursing students in Scotland and Indonesia when preparing for and during placement.

Methods

A quantitative method with experimental participant blinded feasibility study will compare a psychoeducation intervention with usual placement preparation. A sample (n=20) of final-year nursing students from universities in Indonesia and Scotland UK toward clinical rotation in ER and ICU during COVID-19 Pandemic will be recruited. The experimental group will receive psychoeducation intervention in three sessions weekly. The data analysis will be assessed through Multivariate analysis by General Linear Model-Repeated Measure (GLM-RM) to determine the intervention’s effectiveness in coping ability and anxiety prevalence in both groups. Bowen's approach a feasibility study will be designed to evaluate statistical comparisons feedback between both randomized groups in establish a focus area of feasibility.

Research dissemination

The possible result will inform the design of subsequent full-size RCT on this particular setting in international comparison. The study results will be disseminated through publication in the fields of nursing education and mental health nursing journals in a timely fashion.

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Abbreviations

ANOVA	Analysis of Variance
APA	America Psychological Association
BAI	Beck Anxiety Inventory
BRIEF COPE	Brief-Coping Orientation of Problem Experienced Inventory Scale
CBI	Coping Behaviour Inventory
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CONSORT	The Consolidated Standards of Reporting Trials
COVID-19	Coronavirus Disease 2019
ER	Emergency Room
ED	Emergency Department
GEM	Generalist Entry Masters
GLM-RM	The General Linear Model-Repeated Measure
ICU	Intensive Critical Unit
LREC	Lothian Research Ethics Committee
Medline	Medical Literature Analysis and Retrieval System Online
MANCOVA	Multivariate Analysis of Covariance Test
MMAT	Mixed Methods Appraisal Tool
MRC	The UK Medical Research Council
PI	Principal Investigator
PICO	Population, Intervention, Comparison and Outcomes
PICOT	Population, Intervention, Comparison, Outcomes and Time
PIPCP	Psychoeducation Intervention for Pre-Clinical Program
PPE	Personal Protection Equipment
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSS	Perceived Stress Scale
RCT	Randomised Controlled Trial
REDCap	Research Electronic Data Capture
S-Anxiety	State Anxiety
SCSQ	Simplified Coping Style Questionnaire
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
STAI	The State-Trait Anxiety Inventory
STATA	Software for Statistic and Data Science
T-Anxiety	Trait Anxiety
WESP	The World Economic Situation Prospects
WHO	The World Health Organization

CHAPTER 1
INTRODUCTION

1.1. INTRODUCTION AND BACKGROUND

Everyone's life had the most challenging time facing the global virus pandemic's severe outbreak, SARS-CoV-02 since early 2020. The World Health Organization (WHO) has named the disease COVID-19 and declared as a global pandemic after severe spreading. The COVID-19 pandemic, as of writing, 313.272.357 confirmed cases globally, with a mortality rate of 1,8% (n: 5.519.141) death had been established in over than 200 countries worldwide (World meter, 2022). Although the COVID vaccination has already been widely distributed since early 2021, and the restriction in many countries has been lifted, the public still fears the mutating of this virus.

Several sectors imposed to global challenges by Coronavirus due to restriction includes the nursing education. This unpredictable condition, undeniably, forced nursing institutions to rapidly switch the learning strategies into distance remote teaching, and impacts on nursing students' mental health. A recent study from Spain (García-González et al., 2021), spotlighted the anxiety level among final year nursing students arose and emotionally affected during COVID-19.

Thus, they perceived clinical stressors as more intense (Jimenez et al., 2010). As a practice-based profession, clinical practice holds essential value to emerge high performance of nursing students and integrating theoretical knowledge and skills to the nursing student to achieve a professional's competencies (Papp et al., 2003). The clinical placement's outcomes are aimed to enhance the student's critical thinking and decision-making skills in clinical settings (Dunn et al.,1995). As a nursing student's primary element learning process, the clinical practice is crucial to provides nursing student with an ideal opportunity in actual situation, well trained skills by interaction with health workers and patients, and exposed to nursing attitudes (González-García et al., 2020).

It sheds light on why nursing institutions are in the education group that needs to obtain clinical placement amidst the COVID-19 pandemic. However, clinical placement experiences amid the COVID-19 pandemic have undeniably affected students' psychological. A study from Iran (Rafati et al., 2020) stressed how nursing students show arisen anxiety levels in clinical placement settings. Whilst, nursing students' readiness is unstable since they have been exposed to multiple stressors during placement and need to handle it accordingly (García-González et al., 2021). Some studies emphasized how vulnerable and sensitive the nursing

students face the uncertainties of the challenges in clinical placement planning. It was supported with reflection from (Leigh et al., 2020) that those nursing students felt empowered and enabled to manage difficult situations in a clinical environment during a pandemic. The various stressful clinical environments exist; therefore, developing awareness of recognising the phycological response and psychological impact during clinical practice in a specific setting to maximise students' learning outcomes.

A repeated-measures study from Saudi Arabia (Hamadi et al., 2021), evaluated the stress and anxiety level among clinical nursing students before and during COVID-19 has found elevated score during COVID and otherwise before COVID-19 was. The study highlighted nursing students' well-being had been negatively affected by struggling to maintain the proper coping style during the pandemic. And those impacts show a correlation with a coping mechanism. The students' quality of life, educational performance, and clinical practice have been impacted due to these adverse emotions of anxiety (Gurková & Zeleníková, 2018) leading them to become less confident to fulfil the required competencies. It was supported by (Shikai et al., 2009), reported the anxiety during clinical placement has significantly affected to nursing students' performance, emotional state, and willingness to pursue a career in nursing.

Further, nursing students posed several significant stressors in their clinical environment and have used a variant coping style to alleviate that stressor (Bhurtun et al., 2021a). However, nursing students applied various coping mechanisms during pandemics without knowing which coping strategies may positively affect them. A study from (Nurunnabi et al., 2020) spotlighted the adverse psychological effects' nursing students, such as anxiety during clinical practice, have presented immature or dysfunctional coping strategies. While a study from turkey (Aslan & Pekince, 2021) shown nursing students tend to use both effective (i.e., problem-solving and staying optimistic) and ineffective coping strategies (i.e., avoidance and transference).

Adaptive coping strategies are essential when students are experiencing anxiety during their clinical practice in the middle of pandemic. Recent findings indicate that nursing students use both problem-based and emotion-based coping strategies more frequently in their study (Bhurtun et al., 2021b). Nursing students show less ability to adopt an adaptive-problem-focused coping, and tend to adopt mixed adaptive and maladaptive emotional-focused coping instead to cope with the stressors (Bhurtun et al., 2021b). (Baluwa & Mhango, 2021) stressed how crucial to encourage nursing students use positive coping styles in promote psychological well-being in the pandemic crisis. In addition, (Bhurtun et al., 2021b) also revealed nursing students predominantly adopted maladaptive emotional-coping styles during rotation in

complex clinical learning environments such as Intensive Critical Unit and Emergency Department.

In Indonesia and Scotland, nursing students are required to perform clinical rotation in complex units; emergency department and critical care unit, on their final academic year. The purpose of placement during that period is to fulfil the regulatory requirements for qualification to be a nurse. Yet, the emergency department and ICU need complex competencies, high pressure, and challenges for undergraduate students. Undeniably, these stressors has negatively impact students' psychological, especially in the COVID-19 outbreak (González-García et al., 2020). The significant clinical stressors related to clinical placement during the pandemic includes the possibility of lacking professional nursing knowledge and skills to the actual patients, less understanding of diagnoses, medical treatment, and medical history (Jimenez et al., 2010).

Therefore, a psychological intervention is may enhance the understanding of recognising the adverse feeling too specific stressors and adaptive coping styles. This study will organise a structured psychoeducation intervention for the pre-clinical program (PIPCP) to empower well-being students. In many literatures, psychoeducation intervention (PI) significantly improves students' clinical performance and enhances their self-efficacy, resulting in anxiety reduction (Sarkhel et al., 2020).

1.2. JUSTIFICATION OF THE STUDY

The COVID-19 pandemic undeniably bring negative impacts to nursing education in developing and developed countries. Despite of how nursing schools globally responded to the pandemic following WHO's guidelines (Agu et al., 2021) there are differences in measures and mitigation strategies across countries. Therefore, further study of international comparisons should be considered to explore the possible variations among student experiences in different settings. The result may inform additional strategies to optimise nursing education during a pandemic in responding, coping, and recovering quickly from future occurrences (Banstola et al., 2021) during their clinical practice in complex units such as the Emergency Department and ICU. Yet, there is lack of the studies and evidence that investigates the efficacy of PIPCP in nursing education during the COVID-19 pandemic. Following the Medical Research Council (MRC)’s suggestion that interventions should be tested for feasibility before conduct a larger scale of trial, the prior feasibility study will be proposed to test this PIPCP's methodology in pre-clinical briefing, identify the crucial part of intervention and explore the

establishment of whether or not a full-size RCT will be feasible to conduct in this particular setting.

1.3. AIM AND OBJECTIVE

This study proposes a psychological intervention to establish the effect of psychoeducation intervention to enhance nursing students' ability to adopt an adaptive coping style in anxiety reduction in developing and developed countries. A pre-clinical psychoeducation intervention required to be tested to find out the strength and weakness of the full-plan intervention. Therefore, this feasibility study will be carried to explore the effect of psychoeducation intervention for the pre-clinical program (PIPCP). The finding believed to help researcher in designing a future full-size randomised controlled trial (RCT) to measure PIPCP's effectiveness in reducing nursing students' anxiety during ER and ICU rotation in COVID-19 by enhancing their positive coping mechanisms. Particularly, in problem-focused and adaptive emotion-focused coping styles.

Therefore, the aim of the study is to increase evidence-based interventions by investigating the feasibility of psychoeducation intervention for the pre-clinical program (PIPCP) to enhance nursing students' ability to adopt an adaptive coping style in the Emergency Department and Intensive Critical Unit during the COVID-19 Pandemic in Indonesia and Scotland.

1.4. SUMMARY

This chapter has depicted the justified background of this research proposal in general. As aforementioned, nursing students are vulnerable people with adverse physiological health impacts since they regularly pose several stressors in a clinical rotation in complex units. Therefore, activating the psychoeducation activities might raise the adaptive response and better understand the pandemic among clinical nursing students. In an attempt to strengthen students' confidence and ability to cope and respond to the crisis, pass the clinical practice during COVID-19 (Xu et al., 2021) and lead students to adaptive coping skills, reduce uncertainty, and relieve psychological pressure, and effectively improve their anxiety state.

Therefore, this research proposal allows the process to assimilate the knowledge and experience from the literature review. By developed a structured psychoeducation intervention in small group which are effectively develops personal therapeutic factors to encourage hope and interpersonal learning (Mughairbi et al., 2020). This proposed intervention is cost-effective, simple to delivery and may reduce student anxiety and attrition. This psychological

intervention will focus on the problem-focused coping and role-play group to achieve adaptive coping skills as the basic concept of how anxiety and coping style in both problem-focused and emotion-focused coping techniques may bring positive effect to student's well-being.

Engage nursing student's understanding of anxiety through pre-clinical training before placement in ER and ICU may encourage students to improve their ability to adopt an adaptive coping style in both problem-focused and emotion-focused coping techniques (Xu et al., 2021). As anticipated in this chapter has set the scene for chapter two, which will focus on a critical review of specific research within nursing students in clinical placement during COVID-19.

CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

2.1.1 Rationale

In designing a research study, understanding the current literature is critical to assimilating knowledge and experience. Literature review evoked to gain an understanding of the existing relevant evidence in particular research to present the knowledge. Generally, the literature search is carried out to provide adequate evidence, inform appropriate methodology, and minimize duplicative research (Maggio et al., 2016). As a foundation for this research, the literature review will identify what is already known about a particular subject and critically appraise any existing studies. Furthermore, identifying the gaps through this process could be addressed further research and strengthen the need for any proposed research.

As the commencement of this research study will stressed on how COVID-19 Pandemic has caused global anxiety and higher levels of psychological stress to nursing education (Sun et al., 2020). The policy forced a rapid transition to distance learning and was replaced online to protect the students, teachers, and staff. Yet, nursing institutions are inevitably continue the clinical placement for students in the middle of COVID-19 Pandemic to bridge theoretical knowledge and skills to achieve a professional's competencies (Papp et al., 2003), and enhance the nursing student's critical thinking and decision-making skills in clinical settings (Dunn et al.,1995). However, students expressed that the clinical situation was more intense. Nursing students were affected with a moderate level of anxiety (Banstola et al., 2021) in the COVID-19 pandemic and were chosen immature or negative coping strategies unintentionally (Nurunnabi et al., 2020).

Therefore, the literature review was undertaken in order to expand the knowledge base to identify the nursing students' needs, reduce any possibility of anxiety, and adopt the adaptive coping strategies that will be helpful associated with the Pandemic during their clinical practice at COVID-19 pandemic. Therefore this review aimed to :

1. Establishing the quality of the published literature
2. To investigate anxiety and coping when pre-reg students on placement during pandemic.
3. To identify gaps in literature to inform the direction of future research

2.1.2 Objectives

This literature aimed to conduct a systematic narrative review to identify and explore the quality and nature of existing evidence relating to the pre-registered nursing students' Anxiety, and coping strategies on their clinical placement during the COVID 19 pandemic. The possible result may develop a theoretical framework to design an intervention to reduce the anxiety that may affect nursing students delivering a high quality of care during their clinical placement. The PRISMA 2020 checklist was used to develop the transparent, and guide to reporting of systematic review as the essential tools for summarising evidence reliably (Page et al., 2021)

2.2 METHODS

2.2.1 Design

Systematic review in narrative methodology has been chosen as a research design to synthesize and assess all relevant studies by generate a robust and empirically derived answer to the research question. A systematic reviews addressed to identify, evaluate, summarize, and synthesize the findings of all relevant studies by identifying gaps in research and beneficial or harmful interventions that will be useful for clinicians, researchers, and even for the public and policymakers (Ganeshkumar & Gopalakrishnan, 2013).

2.2.2 Research question formulation using PEO

Research question was formulating by PEO framework following the Cochrane Collaboration to defining key elements, and guide the search terms.

Table 1. The PEO Framework

PEO	Content	Question
P (Population/Problem)	Pre-registered nursing students	What were pre-registered nursing student's anxiety and coping strategies on their clinical placement during the COVID-19 Pandemic?
E (Exposure)	Clinical placement during the COVID-19 Pandemic	
O (Outcomes)	Anxiety and coping mechanism	

The research question on this systematic review is: *"What were pre-registered nursing student's anxiety and coping strategies on their clinical placement during the COVID-19 Pandemic?"*

2.2.3 Preliminary search

The preliminary search have carried throughout Clinicatrial.gov, Prospero, PubMed, and google scholar to ensure the validity of the proposed idea, avoid duplication of previously addressed questions, and assure that the author has sufficient articles for conducting its analysis. Thus, author found none of a systematic review or meta-analysis related to this topic.

2.2.4 Keywords

Criteria for selecting the keywords associated with Medical Subject Headings (MeSH) terms were applied appropriately to develop an advanced search and retrieve articles that most relevant to the research question. The searching process of the databases uses the combination main terms of "anxiety," "coping strategies," "nursing student," "clinical placement," and "COVID-19 pandemic". The combined Boolean operators "AND" and "OR" were used in specific ways to broaden or narrow the results, as shown in table 2.

Table 2. List of keywords

Population	Intervention	Setting
Nursing students ▪ Pupil Nurses ▪ Undergraduate Nursing students ▪ Baccalaureate nursing students	**Anxiety** ▪ Hypervigilance ▪ Anxiousness ▪ Mental health	**Clinical Placement** ▪ Internship ▪ Hospital ▪ Nursing education ▪ Clinical education
	Coping ▪ Coping Strategy Coping Skills ▪ Adaptive Behaviour ▪ psychological adaptation	**COVID 19** ▪ COVID-19 Pandemic ▪ COVID 19 Pandemic

2.2.5 Eligibility criteria

The inclusion and exclusion criteria were devised based on PEO (Population, Exposure, Outcomes) and study design. All studies meet the eligibility criteria were considered on this review as detailed in following table.

Table 3. PEO and Study design for Inclusion and exclusion of studies.

Parameter	Inclusion criteria	Exclusion criteria
P (Population/Problem)	Pre-registered nursing students	Post-registration nursing students
E (Exposure)	Clinical placement during the COVID-19 Pandemic in 2019-2021.	
O (Outcomes)	Phycological impact, anxiety, and coping mechanism	
Study design	Primary research in quantitative, qualitative and mixed-method written in English	Review; for instance, meta-analysis, systematic literature review, and scoping review. Grey literature; press releases, blog posts, case reports, and unpublished manuscripts. Study published in other languages than English

2.2.6 Information Sources

The searching process (conducted by the author, FA) was iterative to ensure a balance between recall and precision. The process was undertook trough electronic searches in scientific databases, hand-searching citation lists, relevant journal index lists, and publications from scientific meetings and relevant conferences. The databases used to collect articles in this study is reliable resource that provides health articles and published in English only within 2019 to 2021.

PubMed was chosen as a primary database to present literature on nursing education. Next is ScienceDirect, Cochrane, and CINAHL (Cumulative Index to Nursing and Allied Health Literature) as a reference database for health science. The final databases are ProQuest, Medline (Medical Literature Analysis and Retrieval System Online), and Psych Info by APA (America Psychological Association), known as Coronavirus collection studies. The clinical trial registry (clinicaltrial.gov) also used to identify any register entry providing relevant information.

2.2.7 Search strategy

A comprehensive search in eight main databases and one register were undertaken comprehensively on the first week of October 2021 through Edinburgh Napier University's access by following keywords to expand the search process. All the records were imported by utilizing EndNote 20 Version as described in entire complete phrases in table 4.

2.2.8 Selection Process

The selection process was following the updated PRISMA 2020 (Preferred Reporting Items for Systematic reviews and Meta-Analyses) (Page et al., 2021) by conducting three main stages following the inclusion and exclusion criteria are :

1. Remove the duplicate articles
2. Review the title and the abstract
3. Review the full text based on the PICO above and inclusion criteria.

The PRISMA 2020 flow diagram for new systematic reviews (including searches of databases, registers, and other sources) was used to summarize the initial search and assessment process to identify, reduce, and evaluate the records found on this study. In details, the reconciliation process trough EndNote 20 has optimized the implementation, and customized duplicate detection efficiently. The following process was assessed the titles and abstracts of articles until met the inclusion criteria. The articles that failed to address the concept in table 3 will be excluded on this process.

2.2.9 Data Collection Process

After gathering data from extensive search, the pooled literature was filtered using PEO and eligibility criteria. The EndNote 20 was performed to access the full-text articles. Therefore, the extracted eligible articles being discussed and reviewed it by second author (supervisor) and final selected articles in the list of candidates were used as the data charting and treated as the pooled literature result of this study. Any disagreements between the reviewers will be resolved through comprehensive discussion by referring to the critical appraisal tool or with a third reviewer.

2.2.10 Data extraction

The extracted studies systematically charted in tabular form to align with the objective of this study. Data extraction presented to minimize the bias and improve the review's reliability and validity (Zuriguel Pérez et al., 2015). Data extraction records were synthesized in summary format, referring to the methods recommendation from (Schmidt et al., 2020) which effectively reduce duplicate efforts.

2.2.11 Data analyses

A descriptive thematic analysis was used to conduct the data analyses on this study. The initial stage of the analytical themes are combining and identifying the key themes of the pooled studies by following three steps (Thomas & Harden, 2008), include:

1) Coding of essential text
2) Develop the descriptive themes
3) Generate the analytical themes.

The NVivo 20 pro software was utilized to facilitate the synthesis, formulating and breaking down into subtopics, performing all data extraction, coding, and theme gathering. Due to the nature of this study, ethical approval was not required.

2.2.12 Appraisal Tool

The critical appraisal is a crucial stage to conduct a systematic review to get the analytical evaluations of the quality of the study and minimize biases in a research project (Katrak et al., 2004). To appraise the broad range of evidence reported, the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018) is highly considerable to use on selected records. Each criterion rated on a scale of "Yes," "No," and "Can't tell." For the initial screening question, by responding "No" or "Can't tell" to the questions might indicate that the paper is not fit enough as an empirical study and cannot be appraised. Responding "Can't tell" would lead the authors to ask for more information or clarification and cannot be appraised. Responding "Can't tell" would lead the authors to ask for more information or clarification.

Although MMAT does not explicitly provide the number for scoring, the author considers creating the numerical rating to identify the methodology quality in three options tool: “Yes”, “No”, and “Can't tell” by 2,1 and 0, respectively. Total quality score ranges from a minimum of 0 to a maximum of 10 was calculated by following Spearman's correlation approach (Akoglu, 2018), which is classified into five categories; very weak (0-2), weak (3-4), moderate (5-6), strong (7-8) and very strong (9-10). Finally, choosing the appropriate category of studies to appraise by looking description and methodology used in the included studies.

2.2.13 Synthesis methods

The narrative summary is used to synthesize both quantitative and qualitative studies on this study, include the narrative synthesis of all primary and adverse outcomes will be used to describe the process and show the essential details about pooled literature. In order to enhance the transparency (Snilstveit et al., 2012), the narrative summary following the foundation of data extraction appropriately.

2.2.14 Reporting bias assessment

In reporting bias, in many ways, can lead to overly optimistic estimates of outcome effects associated with publication and non-publication, delayed publication, the difficulty level in accessing the articles, diversity of languages, and the selective reporting of outcomes. Therefore, the search strategy was sufficiently comprehensive to increase opportunities to identify all studies that met the eligibility criteria. Nevertheless, this study's reporting bias might be inherent, and will report in the gap of knowledge.

2.3 RESULTS

2.3.1 Study selection

Figure 1 below demonstrates how the PRISMA 2020 Flow Diagram for new systematic reviews used in the selection process for refining the articles included in this study. Moreover, for the details of selected studies will be summarized in the study characteristics.

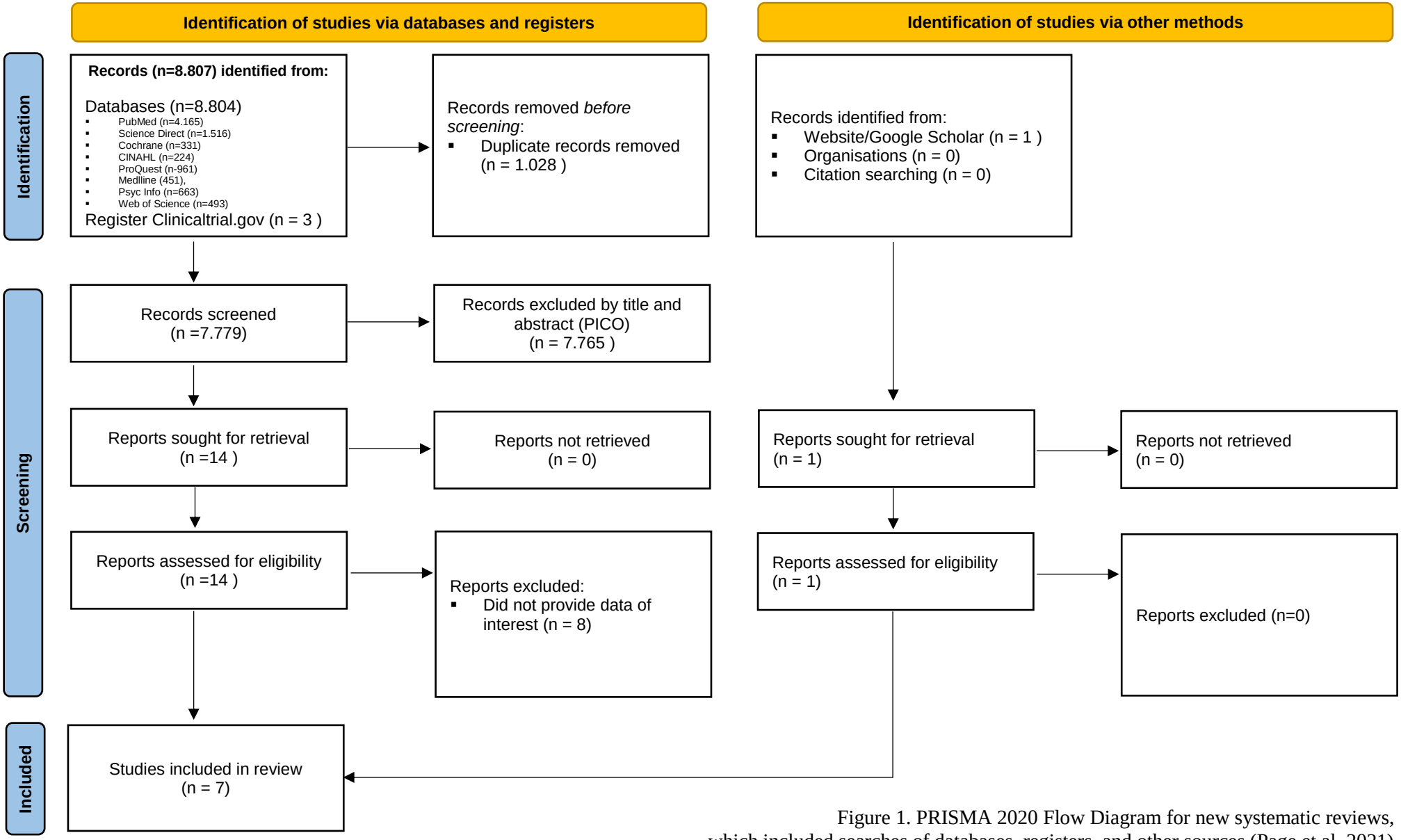

Figure 1. PRISMA 2020 Flow Diagram for new systematic reviews, which included searches of databases, registers, and other sources (Page et al.,2021)

2.3.2 Quality Appraisal

The MMAT Checklist version 2018 (Hong et al., 2018) was carried out to assess the quality and identify the strengths and weaknesses of both qualitative and quantitative studies. None of the selected articles was excluded since all studies present good methodology quality. Both researchers reached an agreement after the quality assessment and all the selected literature were indicated as empirical studies and fulfilled the criteria to be reviewed.

In general, the assessment has identified three robust "very strong" studies, two were "strong", and two were “moderate”, as shown in table 6. The two (Hamadi et al., 2021) (Xu et al., 2021) of three "very strong" studies were qualitative non-randomized studies which accurately described the participants' representativeness, the gold standard of the measurement, the acceptable data outcome, the confounders factors and the potential changes that affected to the result. The rest was a qualitative study that underwent a rapid analysis approach (Godbold et al., 2021), which systematically and cost-effectively summarized the final themes associated with grounded theory, as well as the suitability of the employed data analysis methods.

On the other hand, despite how the justification of respondents’ eligibility was not clearly mentioned by (Ulenaers et al., 2021), and the grounded theory became less associated with the data analysis process in (Diaz et al., 2021), these studies were counted as “strong” quality. Both studies provides extensive validated findings, and reasonable methodologies. The remaining two quantitative studies was reached a score of 60% (moderate) on quality assessment. Admittedly, (Banstola et al., 2021) did not explain the justification of the measurements (validated and reliability tested), nor (Nweke et al., 2021) did not specifically describe the respondent's situation; either the participants were in clinical practice or had been in clinical practice. Some potential changes and exposure that may influence the outcome were not performed on this study concomitantly. However, other criteria have been fulfilled appropriately and led these studies as an acceptable review.

Table 6. Critical appraisal using the MMAT (Mixed Methods Appraisal Tools) Version 2018

No	Author, year and study design	Methodological quality criteria					Quality	Comment
Quantitative Non Randomized Studies		The **participants** are representative for the target population	The **measurements** are appropriate in both the outcome and exposure	**Complete outcome** data	The **confounders** are accounted for in the design and analysis	The **exposure occurred** as intended during the study period		
1	(Banstola et al., 2021) Descriptive Cross-sectional	Yes	Can't tell	Yes	Yes	Can't tell	6 (moderate)	▪ The justification of the measurements with validated and reliability tested was not accurately described. ▪ Hard to identify some changes/exposure that may influenced the outcome.
2	(Hamadi et al., 2021) Descriptive Cross-sectional	Yes	Yes	No	yes	Yes	9 (Very Strong)	▪ Response rate less than 80%, respondents were self-referred volunteers.
3	(Nweke et al., 2021) Repeated-measures cross sectional	Can't tell	Yes	Yes	Can't tell	No	6 (moderate)	▪ The current participant's situation was not clearly described; either they were in clinical practice or have been in clinical practice. ▪ No discussion if any changes/exposure occurred
4	(Ulenaers et al., 2021) Descriptive cross-sectional	No	Yes	No	Yes	Yes	8 (Strong)	▪ The response rate was 17,45% (665 of from 3809 students). ▪ The participant's situation was not accurately mentioned.
5	(Xu et al., 2021) Cross sectional	Yes	Yes	Yes	Yes	Yes	10 (Very Strong)	▪ Unplanned co-exposure were present.
Qualitative Studies		The qualitative **approach** is appropriate enough to answer the research question.	The **data collection methods are** adequate to address the research question.	The **findings** are derived adequately from the data	The **result interpretations** is sufficiently substantiated by data	Qualitative data sources, collection, analysis and interpretation, are **coherent**	**Quality**	**Comment**
6	(Godbold et al., 2021) Rapid analysis techniques	Yes	Yes	Yes	Yes	Yes	10 (Very Strong)	▪ Restricted to one geographical area and a self- selecting group of participants. ▪ Used the RA approach which systematic, cost-effective and timely insights. Clear demonstrating of data analysis's stages: from summary template to final themes and associated with grounded theory.
7	(Diaz et al., 2021) Descriptive	Yes	No	No	Yes	Yes	8 (Strong)	▪ Not well-suited to the task by requiring the respondent written down from the question. The answers were not potentially identified human behaviour properly, which can be challenging to quantify. ▪ The grounded theory did not clearly describe the main idea of open-ended questions regardless of how the data analysis process was proper enough with the findings.

2.3.3 Study characteristics

All included studies of the quantitative and qualitative studies were synthesized in a summary format below. Likewise, the characteristics of the studies included in this review are also detailed in tabular form table 7.

2.3.1 Geographical distribution

In terms of geographical distribution, studies included in this reviews were most frequently conducted in the Asia (n = 3) (, followed by Europe (n = 2), Africa (n = 1) and USA (n=1). Following the classification of development countries from the World Economic Situation Prospects (WESP) (Nations, 2020), four studies were carried out in high-income countries, two study from lower middle-income and one from upper middle-income.

2.3.2 Study design

The majority of studies chosen were quantitative (n=5), primarily with four descriptive cross-sectional designs ((Banstola et al., 2021),(Nweke et al., 2021),(Ulenaers et al., 2021),(Xu et al., 2021)) and one repeated-measures cross-sectional designs (Hamadi et al., 2021). The two remaining studies were qualitative with rapid analysis approach (Godbold et al., 2021) and descriptive method (Diaz et al., 2021).

2.3.3 Objectives

The study objectives were quite diverse concerning to nursing student's phycological impact on their clinical practise amid the COVID-19 outbreak. Moreover, the studies most commonly referred to explore the students' experiences and perceptions (n=3), followed by identifying the prevalence of anxiety and stress levels associated with the coping strategies (n=2), the remaining were focused on the factors of coping abilities (n=1) and student's readiness associated with anxiety (n=1).

2.3.4 Demographic

The demographic studies represent the pre-registered nursing students who did the clinical placement in a hospital within 2020 to 2021 in all levels from diploma, undergraduate and generalist entry masters (GEM) programs. Across the studies, 3.274 participants were recruited (range 16-1992). Of those, 88,35% (n=2.729) were female, 7,48% (n=245) of male, and the remainder not identified (n=300).

2.3.5 Data collection methods

Due to coronavirus restrictions, data collection methods conducted through an online survey (5 studies), mobile phone app-based survey (1 study) and videoconferencing platform (1 study) after completing the consent form and informing confidentiality. The distinct majority of the measurement tools (n=4) in quantitative and qualitative studies developed from

researchers-structured tools based on their theoretical framework and has been tested in advance. A self-structure tool (Nweke et al., 2021), a purpose-built survey (Ulenaers et al., 2021), a semi-structured interview (Godbold et al., 2021) and an open-ended questionnaire (Diaz et al., 2021) were performed with a series of constructed questions relating to student's clinical experience during COVID-19 pandemic. While the rest (n=3), through the existing validated measurement tools; Beck Anxiety Inventory (BAI) and BRIEF COPE (Banstola et al., 2021), Perceived Stress Scale (PSS) and Behaviour Inventory (CBI) (Hamadi et al., 2021), and the Psychological and Behavioural Responses to Public Health Emergency and the Chinese version of the Simplified Coping Style Questionnaire (SCSQ) (Xu et al., 2021) have provided primary data of the clinical student's anxiety level and their coping abilities.

2.3.6 Data analysis

Five quantitative studies on this review used three different statistical tools for their data analysis. Three studies utilized the SPSS software 16 (Banstola et al., 2021) and 22 version ((Nweke et al., 2021),(Xu et al., 2021)), one was conducted STATA 16 (Hamadi et al., 2021), and one used R: A Language and Environment for Statistical Computing version 4.0.1 to retrieve the big data analytics (Ulenaers et al., 2021). Above all, the descriptive statistics were performed to report their final analysis. On the other hand, the thematic analysis approach was conducted by two qualitative studies ((Godbold et al., 2021),(Diaz et al., 2021)) and one quantitative study (Ulenaers et al., 2021) as their data analysis techniques to synthesize an accurate description.

Table 7. Characteristic of the reviewed studies

No	Author(s) Year,Country	Tittle	Study Design	Aim of Study	Sample size and setting	Measurement tools	Data Analysis	Key Findings	Recommendation
1	(Banstola et al., 2021) Nepal Journal : Journal of the Nepal Medical Association (Q4)	Anxiety among nursing students towards clinical placement during covid-19 in a tertiary hospital of nepal	(Quantitative) Descriptive cross-sectional design	Find out the prevalence of anxiety among nursing students during clinical placement in the pandemic of COVID-19.	144 diploma and undergraduate nursing students (100% female) in clinical rotation of a tertiary hospital of Nepal. Respondent who had no known mental illness were included in the study.	Google link to the online questionnaire: 1. Demographic and 10 items of question related to COVID-19. 2. Anxiety ➔ Beck Anxiety Inventory (BAI) - 21 items 3. Coping ➔ BRIEF COPE (28 items) Data collection : 20 Jan - 2 Feb 2021	SPSS Software version 16. The descriptive statistics employ to report the frequency, percentage, mean and SD.	All the nursing students who had clinical placement had anxiety : ▪ 81% of mild anxiety ▪ 19% of moderate level. The most response of the anxiety was feeling terrified/ afraid 25% and nervousness (25%). Religion is the most used by nursing students, among other coping strategies, following by denial and acceptance.	▪ Nursing faculty need to further investigate the students' needs in the clinical setting to reduce the potential factors contributing to students' anxiety. ▪ Develop an interventions and adopt adaptive coping strategies to reduce adverse mental health associated with clinical placement during outbreak.
2	(Hamadi et al., 2021) Saudi Arabia Journal: Nursing Reports (Q4)	Stress and Coping Strategies among Nursing Students in Clinical Practice during COVID-19	(Quantitative) A repeated-measures study design	Examine nursing students' stress levels and their coping strategies in clinical practice before and during the COVID-19 pandemic.	131 under-graduate nursing student in clinical placement (75,6% female and 24,4% male) : ▪ 61 students before COVID-19 ▪ 70 Nursing student during COVID-19	Before COVID-19 ▪ Data collection in 1 Jan - 2 Feb 2019. ▪ Collected directly - at the end of in-person lectures. During COVID-19 ▪ Data collection in 30 Sept - 30 oct 2020 ▪ Data collection were sent the survey via a Google Form. Tools: 1. Stress ➔ Perceived Stress Scale (PSS) PSS - 29 items to 6 categories. 2. Coping ➔ Coping Behaviour Inventory (CBI) - 19 items into 4 categories 3. Demographic survey ➔ Gender, Clinical area and academic year	STATA Version 16	▪ Reliable relationship between stress and coping strategies during the covid-19 pandemic. ▪ The stress and coping strategy scores were higher during COVID-19 ▪ The most significant source of stress during COVID-19 was lack of professional knowledge and skills ▪ Mostly, nursing student used Emotion Focused coping : avoidance and transference as their coping strategies.	▪ Nursing schools and hospitals should pay attention by providing psychological support to nursing students and exposing them to some ideal strategies to cope with it. ▪ Focus on students' ability to manage emotions and effective coping tools to improve their mental health status.
3	(Nweke et al., 2021) Nigeria International Journal of	Readiness for clinical practice amidst coronavirus among	(Quantitative) A descriptive cross-sectional	Assess the readiness on resumption for clinical practice	300 undergraduate nursing students from 5 institution in south-west Nigeria.	An online questionnaire with six significant scales on a self-structured tool developed by the Authors with a reliability index was 0.72.	SPSS Software version 22.	The nursing students presented a high level of readiness (61,7%), but only a few were redy to practice in	Nursing institutions and clinical site need to collaborate to intensify the theoretical teaching to the students before clinical

No	Author(s) Year,Country	Tittle	Study Design	Aim of Study	Sample size and setting	Measurement tools	Data Analysis	Key Findings	Recommendation
	Africa Nursing Sciences (Q2	nursing students in southwest Nigeria		amidst coronavirus pandemic among Nursing students in South-West Nigeria.		Data collection : 1 June - 1 August 2020	The descriptive statistics used to synthesize the sociodemographic variables and presented in graphs and charts	coronavirus wards (30,7%), related to fear of getting infected (source of anxiety).	practice. Restructure the methods to increase student's competence/confidence in infectious area
4	(Ulenaers et al., 2021) Belgium Journal: Nurse Education Today (Q1)	Clinical placement experience of nursing students during the COVID-19 pandemic	(Quantitative) Cross-sectional study	Investigated nursing students' experiences during clinical placement in the midst of the COVID-19 pandemic.	665 diploma and undergraduate nursing students from nine Belgian nursing schools. (Female : 89.77% and Male : 10,23%)	A purpose-built survey developed through the pilot test prior, consisted 5 main element: ▪ Demographics and work environment. ▪ Perception of infection risk ▪ Self-efficacy in COVID-19 related competencies ▪ Support and communication during clinical placements ▪ Resilience. Collected through online platform (Qualtrics) provided by university Data collection : March - June 2020	R Analytics software (Language and Environment for Statistical Computing) version 4.0.1, and reported descriptively. The thematic analysis approach is used in analysing the open questions	Students experienced severe (high-level) anxiety during covid-19 related to uncertainties, fear of getting infected, lack of PPE during practice, and how to deal with the challenges of distance education. The resilience factor and humour were effective in reducing the level of anxiety.	▪ Develop the digital preclinical training. ▪ Session from their preceptor and supervisor are crucial. ▪ Students' testing and easy access must be addressed appropriately. ▪ The clinical site and nursing school should collaborate to give sufficient attention to the health and well-being of students.
5	(Xu et al., 2021) China Journal : BMC Nursing (Q1)	Factors influencing the coping abilities in clinic nursing students under public health emergency (COVID-19): a cross-sectional study	(Quantitative) Cross sectional	Analysed the influencing factors of coping abilities of clinic nursing students under COVID-19 to improving the crisis coping abilities of clinic nursing students.	1.992 of diploma and undergraduate of Chinese clinic nursing students from 18 colleges . (Female 92.87%, Male 7.13%) Participants who experiencing major personal or family events what potentially affect their psychological state in the past 6 months were excluded.	Data collected through mobile phone app-based survey, contained : 1. Demographics 2. Psychological and Behavioural Responses to Public Health Emergency: Questionnaire , consists of 3 parts : a) Cognitive Response Questionnaire b) Behavioural Response Questionnaire c) Simplified Psychosomatic Symptom Scale The Chinese version of the Simplified Coping Style Questionnaire (SCSQ), tested the corelation between positive and negative coping Data collection : 6 - 20 Feb 202	SPSS version 22	▪ Identified source of anxiety in difference of coping level during COVID-19 ▪ Higher level of adverse coping and have acute psychological reactions. The most maladaptive coping used was Avoidance, associated with Pandemic level and uncertainty. The positive coping was active coping and seeking for help, associated with gender and clinical site environment.	▪ Formulate the emergency management mechanism for clinic nursing students. ▪ Improve students' crisis coping ability during clinical practice ▪ Strengthen students' ability and communication to deal with crisis and pandemic. ▪ New policies and regulations and measures on public health emergencies in time

No	Author(s) Year,Country	Tittle	Study Design	Aim of Study	Sample size and setting	Measurement tools	Data Analysis	Key Findings	Recommendation
6	(Godbold et al., 2021) Hertfordshire, UK Journal : Nurse Education in Practice (Q1)	The experiences of student nurses in a pandemic A qualitative study.pdf	(Qualitative) Rapid analysis techniques	To get deeper understanding of the experience of our students and provide a firm evidence base for informing our approaches to student experience working on clinical placement in a pandemic	16 of final year undergraduate nursing students, when their clinical practice was during or close to the end(15 female, 1 Male)	▪ Data was collected through online interviews via Zoom Platform with the semi-structured interview. ▪ All interviews were audio-digitally recorded and transcribed. ▪ The interview question consisted of 10 categories which being tested and identified from rapid analysis. Data collection : July - September 2020.	The thematic analysis was used to analyse every documented steps until each aspect met the reflection.	▪ The initial anxiety happens when the participants realized put themselves and their families at risk by working during the pandemic. ▪ The placement experience undoubtfully consider as raising factors of their stress levels. ▪ The challenging situation in hospital such as physical impact of PPE and handling the dying patient leading to higher level of anxiety.	▪ Offering a weekly tutorial to students during placement. ▪ Recognize the triggers ▪ Scheduling to revisit to identify students' experiences that potentially affected their mental well-being.
7	(Diaz et al., 2021) USA Journal : Journal of Professional Nursing (Q1)	Nursing student experiences in turmoil: A year of the pandemic and social strife during final clinical rotations	(Qualitative) descriptive	To explored the perceptions and experiences of nursing students whose clinical rotations were abruptly interrupted by COVID-19's initial surge in the United States	26 Generalist Entry Masters (GEM) nursing student on final clinical rotations from cohort 2020 (Female 92.3% and male 7.6%).	Data were collected using an online survey data investigator through REDCap (Research Electronic Data Capture). Answering an open-ended questions (written) of 8 main categories related to pandemic (thought, impression, experiences, source of stress, coping strategies, future career and profession perception). Data collection : Nov 2020 - Mid Jan 2021	The thematic analysis method includes open coding, creating categories, and data abstraction is used in analysing.	▪ Experiencing on ongoing adverse feeling : uncertainty, fear, adaptation, and loss during the pandemic, ▪ Students implemented various coping strategies to adapt to the abrupt interruption of in-person clinical, mandated restrictions, and social unrest. ▪ A significant phycological significant impact on daily life : 1. Breakdown of regular systems. 2. Feeling alone and the inability to escape. 3. Protective factors/adaptability. 4. The role identifies and formation.	aculty and students should access to get the emotional cal well-being resources. tudents' needs by offering e learning opportunities and cate clearly. n the relationships amongst nd faculty, extra attention and sensitivity he desire to promote a sense of ty.

2.4 FINDINGS

2.4.1 Thematic analysis

The inductive content analysis emerged with three main themes are :

1. Uncertainties
2. Problem-focused coping (adaptive strategies)
3. Emotion-focused coping (adaptive and maladaptive strategies)

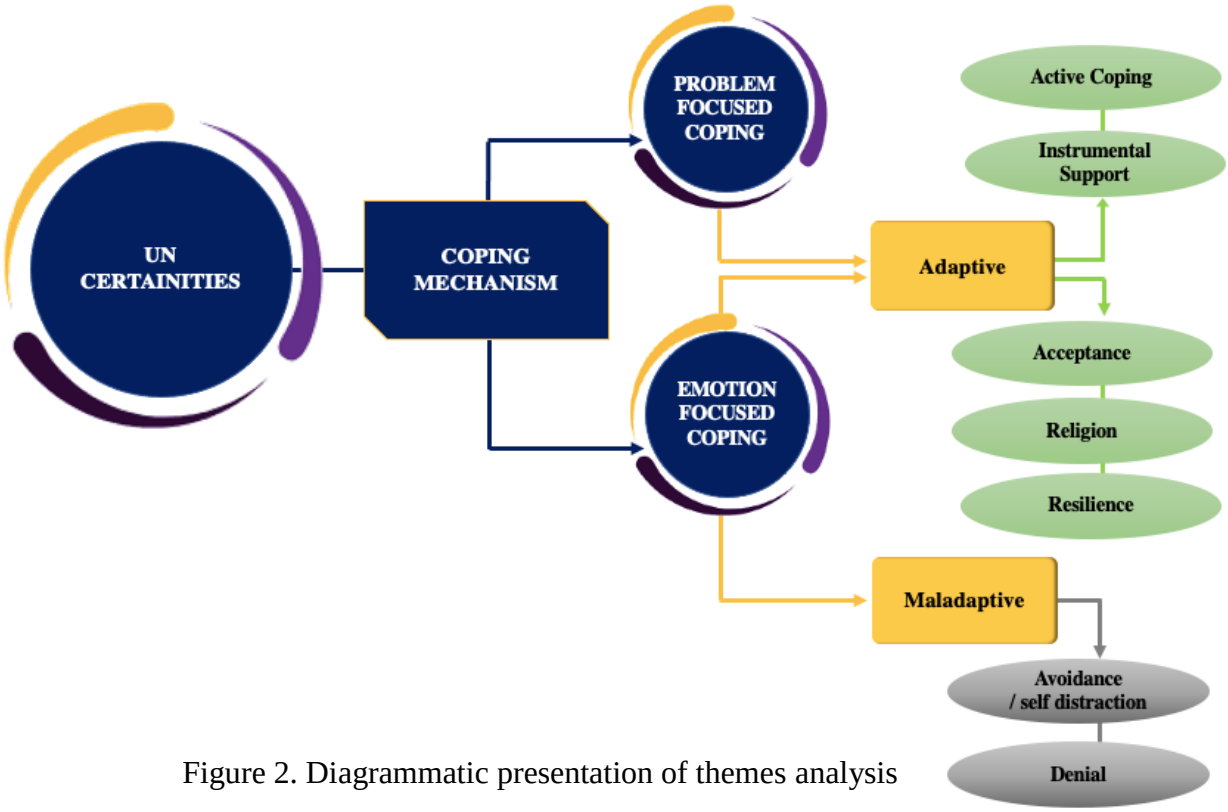

Figure 2. Diagrammatic presentation of themes analysis

2.4.2 Key Themes

Theme 1. Uncertainties

Many aspects of nursing education been affected by this pandemic, included the healthcare facilities as a clinical site. Nursing students must complete their in-person clinical practice to complete the learning requirement as a fundamental role in integrating theoretical knowledge and skills to achieve a professional's competencies. The COVID-19 disrupted clinical experiences and outcomes (Diaz et al., 2021). The scale of the challenges is unpredictable, and nursing students were frequently posed with all the uncertainties. Since there is no explicit assumption how long the virus might take a human to return to normal life and when the pandemic will be 100% under control (Ulenaers et al., 2021).

Nursing students were confronted with uncertainties caused by the pandemic (Ulenaers et al., 2021) and have expressed their ambivalent emotions during placement (Diaz

et al., 2021). Four studies ((Ulenaers et al., 2021),(Xu et al., 2021),(Diaz et al., 2021),(Hamadi et al., 2021)) reported students conveyed some uncertainties that upended their daily placement activities. It includes; less opportunity to enrich their skill (Ulenaers et al., 2021), the possibility of getting infected ((Xu et al., 2021),(Diaz et al., 2021)), and inadequate Personal Protective Equipment (PPE) (Hamadi et al., 2021), which made them anxious by not knowing what would happen next (Diaz et al., 2021) and putting themselves and their family at risk (Godbold et al., 2021).

The noticeable impacts on nursing students' experiences and uncertainty about their performance after facing several limitations to fulfil their learning outcomes and competency expectations has identified from three studies ((Ulenaers et al., 2021),(Godbold et al., 2021),(Diaz et al., 2021)). In qualitative studies, nursing students revealed that working with health workers who were physically and mentally exhausted by being overworked during pandemic (Godbold et al., 2021) forced them to adapt with several possibilities of missing the opportunities and might losing expected milestones along their educational trajectory (Diaz et al., 2021). This was supported in the quantitative study, about 9.92% (n = 66) of students showed adverse feelings about their clinical placement contributions and highlighted their anxiety of unexpected situation has significantly affected the discrepancies between learning objectives and learning opportunities (Ulenaers et al., 2021).

Three studies acknowledged the possibility of getting infected ((Xu et al., 2021),(Diaz et al., 2021)) and transmitting the infection to their loved ones ((Hamadi et al., 2021),(Diaz et al., 2021)) as the adverse psychological reaction from vague situation among clinical nursing students. Following a survey of 1.992 nursing students in China (Xu et al., 2021) found a score of 2.95 ± 1.96 points in cognitive responses of fear of getting infected and was independently associated with the negative coping of clinic nursing students. It inevitably has evoked feelings of the initial phase of anxiousness among students during their practice concerning the possibility of getting infected and spreading to others (Diaz et al., 2021). As a result, (Nweke et al., 2021) revealed that although nursing students had a high level of readiness (61,7%), only a few of them were ready to practice in COVID-19 wards or units (30,7%).

Likewise, data reported that across all the studies that scepticism of the PPE's availability in several clinical sites was a global issue and led as an additional stressors during the first wave of pandemic. In a quantitative survey from Belgium (Ulenaers et al., 2021) participants spotlighted severe shortage of PPE during first wave and some issues against the preventive measures protocol to control COVID-19 were identified, for instance, reusing the mask during the whole shift or even during a couple of days and washing their own uniform

since clinical sites could not provide clean disposal uniforms for students (Ulenaers et al., 2021). Similarly, students from the United States witnessed the chaos of the situation when all nurses and nursing students lacked PPE and highlighted how threatening the situation was since none of the management officers could answer when they could provide the PPE sufficiently (Diaz et al., 2021). These unpredictable conditions have turned their anxieties higher toward what safety on their clinical experience would look like (Hamadi et al., 2021).

Finally, although nursing students being well-aware of the uncertainties of unknown events and the possible changes in every aspect and guidelines were difficult to avoid (Ulenaers et al., 2021), the uncertain state of the COVID-19 crisis became one of the potential factors that led the students into fear and anxiety (Xu et al., 2021). Thus, this factor and pandemic level play determining roles and could jeopardize the student's learning opportunity and their outcome, have caused impactful on their confidence about continuing their education. Students amidst the COVID-19 crisis have expressed how challenging for them to continue their plan for an uncertain future (Ulenaers et al., 2021).

Theme 2. Problem-focused coping (Adaptive strategies)

Two studies have shown that among three problem-focused coping techniques, active coping and instrumental support as the most used mechanism among clinical nursing students to cope their anxiety alongside their practice ((Banstola et al., 2021),(Xu et al., 2021)). As reported in a quantitative study from China (Xu et al., 2021), that an active coping (mean 13.15 ± 2.61) significantly identified from the behavioural response questionnaire. Consistent with a study from Nepal (Banstola et al., 2021), revealed clinical nursing students use positive coping methods like seeking informational support (mean 2.66±0.92) and active coping (mean 2.55±0.80), respectively, to diminish their hypervigilance.

Admittedly, problem-focused coping may effectively enhance positive feeling and lead nursing students to solve the problem better during their practice in deciding with a clear mind (Xu et al., 2021). As shown, students with better psychological responses tend to adopt more positive ways to cope with difficulties in placement (Xu et al., 2021). Likewise, the epidemic prevention and control publicity were associated to encourage the student to adopt a more adaptive problem-focused coping style (Xu et al., 2021).

Theme 3. Emotion-focused coping

While problem-focused coping highlights the individual's active effort in managing and modifying the anxious condition, emotion-focused coping tends to focus on the regulative efforts to diminish the emotional feeling of stressful situations (Schoenmakers et al., 2015).

Six studies ((Banstola et al., 2021),(Hamadi et al., 2021),(Ulenaers et al., 2021),(Xu et al., 2021),(Godbold et al., 2021),(Diaz et al., 2021)) identified a diverse range of emotion-based coping mechanisms among clinical nursing students to adjust their stressors during the COVID-19 pandemic. Studies reported notably similar prevalence rates utilized in both adaptive and maladaptive responses. Acceptance, religion and resilience were the most commonly used in adaptive coping of emotion-focused strategies, whereas avoidance and denial as maladaptive coping have significantly risen unexpectedly.

Sub theme 1. Adaptive emotion-focused coping

To cope with the anxiety alongside the placement, nursing students actively adopted an adaptive emotion-focused coping instead of the dysfunctional strategies during COVID-19, as figured in selected studies. Findings reported the three most used coping styles to overcome anxiety by clinical nursing students were religion (5.03±1.78), followed by acceptance (2.78±0.89) (Banstola et al., 2021), and resilience (49.47%) (Ulenaers et al., 2021). Furthermore, religion and acceptance approaches were associated with low to moderate anxiety levels (Banstola et al., 2021), while resilience strategy is positively correlated with moderate stress and anxiety levels (Ulenaers et al., 2021).

Religion

As spotlighted in a quantitative study from Nepal, religion strongly contributes as a positive coping resource among nursing students under stressful circumstances. Known as a religious country, (Banstola et al., 2021) emphasized religion (5.03±1.78) as the most frequent coping strategy used by Nepali nursing students to manage their mild to moderate level of hypervigilance related to the placement during COVID-19 pandemic. However, the existing measures of the relationship between religion and positive coping skills are still inadequately established since the research findings on the effectiveness of religion in tackling anxiety were solely based on a single study (Banstola et al., 2021).

Acceptance

Clinical students experienced mild to moderate anxiety levels and therefore reported using the acceptance method (2.78±0.89) to alleviate their anxiety during the pandemic (Banstola et al., 2021). A qualitative study from the USA (Diaz et al., 2021) uncovered that accepting the pandemic as a new normal has effectively reduced their anxiety level and improved their emotional endurance for clinical practice, as illustrated by:

"I just got better at accepting that this is how life is now" (S19) (Diaz et al., 2021)

These findings assumed that accepting the uncertainties of a pandemic may improve students' psychological flexibility and highly associated with positive coping abilities. The tendencies

of students' behavioural intention to acknowledge the situation led to a positive influence on adaptive coping.

Resilience

As one of the emotional mechanisms associated with adaptive coping, resilience refers to the individual's ability to deal with stress and anxiety by building the strengths to promote wellbeing (Krohne, 2001). Two studies ((Ulenaers et al., 2021),(Diaz et al., 2021)) claimed the nursing student needs in resilience promotion towards their clinical placement during the pandemic. About 49.47% (n = 329) of nursing students in Belgium (Ulenaers et al., 2021) demonstrated an insightful resilience strategy by maintaining their life balance between clinical practice and their private life. Likewise, 66.32% (n = 441) of them perceived optimism by strengthening their resilience could diminish their anxiety during placement (Ulenaers et al., 2021).

Sub theme 2. Mal-adaptive emotion-focused coping

Findings across three studies ((Hamadi et al., 2021),(Banstola et al., 2021),(Xu et al., 2021)) recognized the clinical nursing students might employ various emotion-based coping strategies to adapt to rapid changes during their placement. According to (Xu et al., 2021), approximately 5,78% of clinical nursing students in China suffered moderate to high anxiety levels on their placement due to COVID-19. Consequently, the anxiety level and unpredictable transition during the pandemic led some students to the adverse response that emerged to dysfunctional or maladaptive coping, and simultaneously raised during COVID-19 compared with before the pandemic (Hamadi et al., 2021).

The two cross-sectional studies conducted in Saudi Arabia (Hamadi et al., 2021) and Nepal (Banstola et al., 2021) reported that clinical nursing students used the three most often maladaptive strategies to cope with their anxiety during placement. The strategies were denial (3.33±1.56), followed by self-distraction (2.25±0.77), and avoidance (1.90±0.91), while the least used was substance use (1.10±0.30). These findings slightly indicate how dysfunctional coping strategies refer to stressful events amidst the pandemic as well (Hamadi et al., 2021). According to BRIEF COPE (Monzani et al., 2015), denial refers to the condition when students try to convince themselves that a pandemic is not real and refuse to believe it has happened. Similarly, in self-distraction, students respond to the stressor by taking their mind off with other activities, for instance: watching, reading, studying, sleeping or shopping. Further, students were diverting and avoiding their attention about the pandemic and trying to forget about it, as indicated in (Xu et al., 2021). The avoidance of COVID-19 and the severity level of the

pandemic were independently associated with clinic nursing students' negative coping (Xu et al., 2021). However, this is understandable, and interventions should be taken to reduce negative coping associated with nursing student's anxiety during placement in COVID-19

2.5 DISCUSSION

Overall, seven studies in this review highlighted relevant sources of elevated anxiety among clinical nursing students and how this contributed to their coping abilities during the COVID-19 pandemic. As the impact of an overwhelming situation during COVID-19, nursing students' anxiety significantly rises while completing their clinical practice compared with the anxiety level before the pandemic ((Hamadi et al., 2021),(Banstola et al., 2021)). According to (Hamadi et al., 2021), anxiety and stress levels were higher during the COVID-19, as shown statistically from (Banstola et al., 2021) that 100% of nursing students were present anxiety in ranges of levels during their clinical placement. This finding slightly similar to a cross-sectional study from Israel (Savitsky et al., 2020) that reported moderate and severe anxiety among 224 nursing students during the pandemic. Yet, on the contrary, the majority of undergraduate students in China (n=5.367) throughout pandemic have presented a normal level of anxiety (Cao et al., 2020). However, since nursing students initially identified their clinical placement as a hypervigilance situation (Mohamed Mohamed Bayoumi et al., 2012), the range of anxiety levels may vary due to the pandemic severity level, countries, and the timing of the study conducted.

Unexpected the coronavirus disease came with highly disruptive has increased the prevalence of students' anxiety during COVID-19. With regard to that effect, four studies in this review confirms the clinical nursing students reflect an intense anxiousness and ambivalent emotions after being confronted with several uncertainties in the clinical site as their main stressor (Ulenaers et al., 2021); affiliated with inability to fulfil the clinical learning expectations (Diaz et al., 2021), possibility of getting infected ((Xu et al., 2021),(Diaz et al., 2021)), and insufficient Personal Protective Equipment (Ulenaers et al., 2021). This findings consistent with (Savitsky et al., 2020) that pointed out the uncertainty and fear of getting infected, which consequently associated with the high score of anxiety level.

Remarkably, the quality of nursing as a practice-based profession depends on students' ability in skills and act critically associated with their clinical performance (Papp et al., 2003). Yet, a study from Belgium (Ulenaers et al., 2021) revealed that nursing faculty recently posed several challenges to accomplish the clinical learning expectations amidst the COVID-19 pandemic includes modifying the clinical site's options into nursing home instead

of hospital. Similarly, the Belgium study (Ulenaers et al., 2021) spotlighted of how the pandemic's dishevelment has caused a shortage of preceptors to supervise the nursing students and how the global issue of inadequate PPE due to massive demand has undeniably embedded as a robust stressor concerning students' less safety. This equation explains the possibility of being infected and infecting their family develop negative resources of anxiety ((Hamadi et al., 2021),(Diaz et al., 2021)) and statistically associated (2.95 ± 1.96 points) with dysfunctional coping (Xu et al., 2021). These situations emerged adverse feelings and hypervigilance among nursing students after missing essential nursing competencies. Consequently, (Diaz et al., 2021) reported these stressors have impacted nursing students' willingness to practice in COVID-19 units and questioned themselves about their choice to become a nurse. As asserted by (Nweke et al., 2021), although nursing students had a high level of readiness (61,7%), low prevalence (30,7%) of students' eagerness to nurse the COVID-19's patients was present related to their less confidence to continue the education. However, it needs further comprehensive analysis by including another variable such as vaccination rate.

To cope with those stressors, some evidence on this review supports on how students adopted both problem-focused and emotion-focused coping styles alongside the placement in COVID-19 era. Five studies found out that emotion-focused coping, whether adaptive or maladaptive coping, was inadvertently embraced by clinical nursing students to reduce the placement's psychological impacts ((Banstola et al., 2021),(Hamadi et al., 2021),(Ulenaers et al., 2021),(Xu et al., 2021),(Diaz et al., 2021)). This is explainable since the notorious COVID-19 has simultaneously produced uncontrollable events that forced nursing students in the affected COVID-19 zone to develop emotional responses since they put an enormous focus on it (Huang et al., 2020). Subsequent findings reflected emotion-focused coping style the most used by students; the strategies were religion (5.03±1.78), acceptance (2.78±0.89), denial (3.33±1.56), resilience (2.41±1.04), self-distraction (2.25±0.77), avoidance (1.90±0.91), respectively. Interestingly, over decades researchers have assumed that emotion-focused coping was highly associated with maladaptive or dysfunctional coping and considered as short-term distractions (Folkman, 2008). Then, in 2008, recent findings confirmed robust evidence ultimately indicates emotion-focused coping style may positively impact to coping abilities (Folkman, 2008).

The top three of emotion-focused coping styles on this review; religion, acceptance and resilience, may offer students propitious influence during placement. A study further revealed (Banstola et al., 2021) that the possibility of greater religiosity might be associated with a positive strategy to cope with emotional conflict. In line with recent Folkman's theory

(Folkman, 2008), religion has positively affected sociocultural values in individuals' thinking and behaviour. Therefore, people with beliefs (e.g., religious, spiritual) predominantly influence their coping ability to deal with stressful situations by show a feeling of definite emotion and gratitude mindset. On the other hand, (Diaz et al., 2021) suggests by accepting the extensive challenges in clinical placement during pandemic will upsurged the student's limits and sufficiently increased their confidence. In support of these findings, that enduring in COVID-19 has put the clinical nursing student's mental wellbeing at risk requires the importance of recognizing the negative emotion during placement and building an active resilience to be aware of (Ulenaers et al., 2021). Moreover, by built the resilience has substantially linked to a moderate level of clinical students' anxiety (Ulenaers et al., 2021). It upheld with qualitative study from the USA (Diaz et al., 2021), which emphasized the resilience as one of the potential positive contributors to lowering students' anxiousness. Above all, during the pandemic, sufficient psychological support from the nursing schools utmost positively impacts their ability to gain personal strength and sustained resilience through a difficult time during pandemic (Diaz et al., 2021). To this end, further investigation into the differences between cultures and population groups is needed to capture the efficacy of emotion-focused coping techniques comprehensively.

Contrast with problem-focused coping, which consistently associated with positive adaptational, two studies ((Xu et al., 2021),(Banstola et al., 2021)) echoed a largish prevalence of active coping (mean 13.15 ± 2.61) and informational support (2.66±0.92) as the most assembly to problem-focused coping style. This further finding consistent with priory studies of 430 baccalaureate nursing students from China (Huang et al., 2020) which found students were initially more eager to apply problem-focused coping strategies. It has been acknowledged that problem-focused coping approach may effectively enhance positive feeling and lead nursing students to solve the problem better during their practice in deciding with a clear mind (Xu et al., 2021). As shown, students with better psychological responses tend to adopt more positive ways to cope with difficulties in placement (Xu et al., 2021). Likewise, the epidemic prevention and control publicity were associated to encourage the student to adopt a more adaptive problem-focused coping style (Xu et al., 2021).

As alluded to earlier, nursing students on their placement were vulnerable to adverse physiological health impacts since they regularly posed with several stressors. Yet, ironically, the nursing education system before the COVID-19 was focused on cultivating theoretical knowledge and clinical practice ability instead of developing crisis coping ability (Xu et al., 2021). Meanwhile, (Diaz et al., 2021) uncovered that support from nursing school by activating

the psychoeducation activities could raise the adaptive response and better understanding the pandemic among clinical nursing students. The existing evidence specifically revealed that resources for emotional and physical well-being in pre-clinical training for nursing students is strongly advisable to encourage them to adopt greater active coping as one of the problem-focused coping styles ((Diaz et al., 2021),(Ulenaers et al., 2021)). In line with (Xu et al., 2021), revealed by providing a convenient group of psychological support for clinic nursing students, the nursing school has significantly improved students' confidence and ability to cope and respond to the crisis to pass the clinical practice during COVID-19 successfully. Strengthening relationships among students and nursing school and fostering greater awareness (Diaz et al., 2021) may lead students to adaptive coping skills, reduce uncertainty, relieve psychological pressure, and effectively improve their anxiety state (Xu et al., 2021).

As aforementioned evidence, due to the overburdened preceptors and their insufficient time to supervise the nursing students, about 24.06% of students (n = 160) expressed the negative influence of their communication during practice in COVID-19 and initially sounding a stronger needs to get proper psychosocial support before placement (Xu et al., 2021). Some results stressed that developing a nursing student's knowledge of anxiety through pre-clinical training support could encourage students to improve their ability to adopt an adaptive coping style in both problem-focused and emotion-focused coping techniques (Xu et al., 2021). Which consistent with (King et al., 2006) that combining problem-focused coping with adaptive style of emotion-focused coping can lead to feasible coping through an evocation of positive emotion with a clear and calm mindset. Moreover, the references from this review ((Ulenaers et al., 2021),(Xu et al., 2021)) declared that maintaining weekly psychoeducational meetings from nursing school before placement as a constructive relationship of psychosocial support is highly considered to reduce the negative psychological impact during practice in the COVID-19. This is consistent with a randomized controlled study from Turkey (Günaydin, 2021), which showed that the nursing student's self-confidence and optimism in the experimental group were substantially demonstrated a diverse range of points before and after psychoeducation. These findings also emphasized the psychoeducation intervention in various ways and settings may increase the student's awareness of anxiety and recognized effective coping.

Align with a recent study from Malaysia (Baluwa & Mhango, 2021) that identified the nursing faculty as valuable resources for students in pandemic crises, the student’s anxiety amid the chaos of the outbreak must be anticipated by nursing schools. Students possibly withdraw from the program as self-doubt sets in, mental and physical health changes, and

eventually affect to the quality of care (Diaz et al., 2021). Therefore, it is imperative for nursing education to highlight the importance of developing an effective intervention in mental health to maintain students' well-being and manage the challenges to achieve better psychological responses to cope with difficulties amidst placement. As presented in this review, some literature revealed a prominent prevalence of active coping as a problem-focused coping style and acceptance as emotion-focused coping with ameliorating the maladaptive impact among clinical nursing students in the middle of a pandemic. Furthermore, by given the initiation use of psychosocial support within nurse education, there is value in exploring this further concerning how nursing students utilized those coping properly to address this issue.

2.6 GAP IN LITERATURE

The existing study which reported the phycological impact and students' coping with clinical placement during the COVID-19 pandemic was finite. Although the heterogeneity of this overview in a particular unit of student's rotation was more expansive than the author expected. The complex unit care (ICU and ER) that emerges vary of complex coping mechanisms was not clearly highlighted and just mentioned in general.

Likewise, the comparative analysis of nursing students' anxiety amidst the crisis in a context of radical uncertainty during placement across the economic level of countries was not found, whilst this issue might be suggestive since each country addressed this situation unequally in resources and finances. Furthermore, the mitigation impact of the mental health crisis and sufficient supply for health workers protection differs across the countries. Hence, it is not too late to achieve a deeper inestimable understanding by targeting the diversity of countries in a comparative study.

Therefore, this study will be conducted to address the gap in the existing literature by testing an intervention in international comparisons settings, which is assumed could diminish the psychological impact and provide the students with adequate coping knowledge to reduce anxiety during placement. Furthermore, by conducting in a limited setting involves developed and developing countries in specific units; emergency department and critical unit which third and fourth-grade nursing students predominately rotate, might provide better strategies exploration in different contexts to optimize nursing education during a pandemic. Finally, this study will introduce novel findings in the health education field concerning the efficacy of psychoeducation intervention to enhance positive responses to help students find effective coping meaning in crisis during their rotation in the emergency department and critical care unit.

CHAPTER 3
RESEARCH PROPOSAL

There is a lack of study investigating psychoeducation intervention's efficacy in nursing placement during the COVID-19 Pandemic. Therefore, increasing the evidence-based interventions emerge as the main purpose of this proposal by investigating the feasibility of psychoeducation intervention for the pre-clinical program (PIPCP). In particular PIPCP might potentially enhance nursing students' ability to adopt an adaptive coping style in problem-focused and emotion-focused coping techniques to reduce anxiety during placement in ER and ICU units amid COVID-19 Pandemic. While a definitive RCT refers to testing the intervention or treatment's effectiveness or efficacy, a feasibility study is designed to develop and evaluate complex interventions before proposing a larger scale of a randomised trial (Eldridge et al.,

2016). Therefore, carried a feasibility study is appropriately needed to establish whether the intervention components are feasible or not to drive full-size RCT in future.

This chapter will describe the development of psychoeducation intervention for the pre-clinical program (PIPCP) as well as the methods and methodology carried out for this feasibility study. The research design, objectives, outcome, participants will be explained. Likewise, component of intervention, the details of the setting of the study, data collection, measurement tools, sampling and data management also included to this chapter.

3.1 RESEARCH QUESTION

Following the PICOT approach, as shown in table 8, the research question on this feasibility study is "*Is a pre-clinical psychoeducation intervention feasible to enhance nursing students' ability to adopt an adaptive coping style in the Emergency Department and Intensive Critical Unit during the COVID-19 Pandemic in Indonesia and Scotland."*

Table 8. The PICOT format

PICO	Content	Question
P(Population)	The Indonesian and Scottish final year undergraduate nursing students in Emergency Department and ICU rotation amidst COVID-19.	*"Is a pre-clinical psychoeducation intervention feasible to enhance nursing students' ability to adopt an adaptive coping style in the Emergency Department and Intensive Critical Unit during the COVID-19 Pandemic in Indonesia and Scotland"*
I(Intervention)	The psychoeducation intervention in three pre-clinical sessions weekly basis.	
C(Comparison)	A standard preparation for pre-clinical practice protocol.	
O(Outcomes)	Change in Anxiety level's prevalence and coping respond, measured using STAI and BRIEF COPE	
T(Time)	The outcome will be measured at baseline and the end of clinical rotation over a period of 16 weeks(4 months)	

3.2 OBJECTIVES

This research proposal objective is to increase evidence-based interventions by investigating the feasibility of psychoeducation intervention for the pre-clinical program (PIPCP) to enhance nursing students' ability to adopt an adaptive coping style in ER and ICU units during the COVID-19 Pandemic in developing and developed countries.

3.3 RESEARCH OUTCOME

The research outcome of to test whether the psychological outcome is superior to usual preparation. Further, the comparative nature of the study will allow for cultural comparisons and diversity, which could inform forthcoming strategies to optimize nursing education during the pandemic. Expectantly, this study will contribute to nursing education institutions in

improving the pre-clinical preparation in psychology aspects before the placement in units mentioned amidst the COVID-19.

3.4 RESEARCH VARIABLES

3.4.1 Independent variable

The psychoeducation intervention pre-clinical program (PIPCP) is the independent variable in this study. It is assumed to be an intervention that can significantly affect anxiety's levels and coping abilities used by final-year nursing students in ER and ICU clinical rotation. Therefore, this is an essential variable for answering the research question.

3.4.2 Dependent variable

Two dependent variables in this study are ;

1. Psychology responds : Adaptive coping ability
2. Psychology impact : Anxiety prevalence.

These variables will be assessed based on instruments within the conceptual framework adopted for this study.

3.5 SETTING OF STUDY

The participating institution involves a nursing school from a high income and middle-income country. The Health Polytechnic of Pontianak (POLTEKKES KEMENKES Pontianak) from Indonesia and Edinburgh Napier University from Scotland (United Kingdom) will be invited to participate in this study. Across the countries, those nursing schools had an equal outcome set of clinical placement in the complex unit in hospital (ER and ICU) for final-year nursing students.

The study will take place in both institutions. POLTEKKES KEMENKES Pontianak, as the only health vocational education degree in west Borneo funded by the Indonesian Government with around 800 nursing students over grades in 2021. And well-established school of health and social care of Edinburgh Napier University which has approximately 600 undergraduate nursing students in total.

3.6 STUDY DESIGN

The quantitative method with experimental design, participant-blinded, feasibility RCT with single arm is considered as the appropriate approach to measure the feasibility of this intervention. In this design, single-arm trial will targeting the psychological intervention is

given to the experimental intervention then followed with sequent observation over the time to assimilate the response.

The feasibility study on this trial following the Consolidated Standards of Reporting Trials (CONSORT) extension for Pilot and Feasibility Trial as illustrated in figure 3 (Eldridge et al., 2016) which refers to CONSORT graphic approach to enhance clarity and quality to reporting the trial.

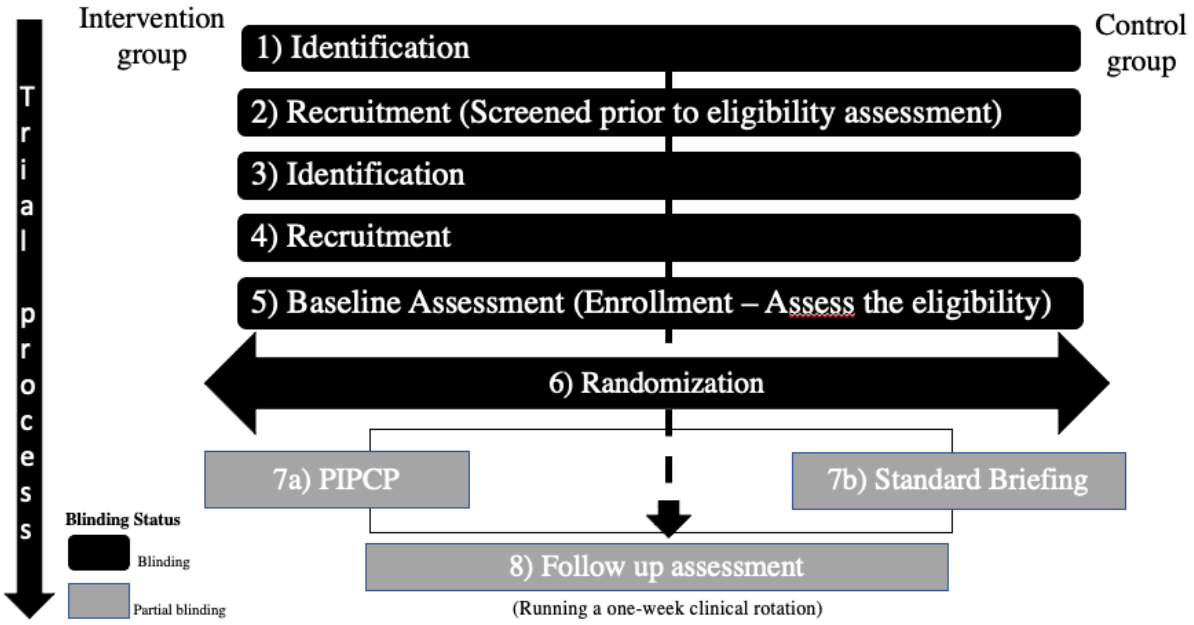

Figure 3. Flow of sites and participants through the preliminary study.

3.7 PARTICIPANTS

3.7.1 Inclusion criteria

This study will enrol a final-year undergraduate nursing student from POLTEKKES KEMENKES Pontianak (Indonesia) and the Edinburgh Napier University (Scotland) before entering clinical rotation in the Emergency departments (ED) and intensive care units (ICU) during COVID-19 pandemic. Participants are at least 18 years old, willing to participate, and able to give their consent during the study period. Since there is no robust evidence that gender may significantly influence anxiety and coping ability, this group will consider women or men eligible for this trial.

3.7.2 Exclusion criteria

Undergraduate nursing students in the first and second year, less than 18 years of age, are unable to give their consent, and those who are not taking emergency nursing and critical care's course yet.

3.8 MEASUREMENTS

The two validated tools, the State-Trait Anxiety Inventory (STAI) and Brief-Coping Orientation of Problem Experienced (BRIEF COPE), are chosen. The student socio-demographic also included. These tools will help the researcher assess and evaluate the variables by performing statistical tests and analysing the differences at the end to determine the effectiveness of the intervention. Participants in the trial need to complete the questionnaires, as shown in Appendix II, on two occasions within 20 weeks apart. The data collection will be conducted in person and adjust to each country's local language. Bahasa for nursing students from Indonesia and English for nursing students from Edinburgh Napier University. The questionnaires in this study will consist of three sections.

3.8.1 Student Demographic information

This section mainly includes (a) the basic information of participants, including gender, age, grade level, nationality, religion; and (b) brief student perception of psychoeducation intervention program and their feeling in ER and ICU rotation during the COVID-19 Pandemic.

3.8.2 Measuring the psychology impact : Anxiety

A validated self-reported “the State-Trait Anxiety Inventory” (STAI) Spielberger (1983) in both scale, state and trait will be used to measure the student’s psychological impact; anxiety on this study. This inventory comprises separate scales in state and trait anxiety. The State Anxiety (A-State) scale measures the current subjective of intense momentary emotional presences state of anxiety, and Trait-anxiety (T-Anxiety) belongs to the relative “stable” characteristic traits of an individual's personality in the anxiety process (Ree et al., 2008)..

This self-report questionnaire has been translated and adapted over 48 languages consisting of 40 items which have 20 items allocated in each scale will administer in an individual format. The S-Anxiety scale used four points of the Likert-type scale : (1) not at all, (2) somewhat, (3) moderately so, and (4) very much so. Whilst the T-Anxiety scale are : (1) almost never, (2) sometimes, (3) often, and (4) almost always. The score interpretation ranged from 20 to 80. Scores of 20-40 indicate no or mild anxiety, and 41 to 80 indicate moderate to high anxiety.

A study from (Julian, 2011) stressed that STAI shown as excellent instrument to tested the temporal and permanent anxiety in research and clinical settings. Which found the tool has high reliable measure by showing a remarkable ability to differentiate between high and low scoring situations and present a reflection to reliable measure of the individual level of anxiety

of the person. It is a good and useful instrument to measure nursing students anxiety changes across intervention sessions prior and after clinical rotation in ER and ICU on this trial.

3.8.3 Measuring the psychology respond : Adaptive coping ability

A validated self-report questionnaire "Brief-Coping Orientation of Problem Experienced" (BRIEF COPE) inventory scale developed by (Charles S. Carver, 1997) will be used in this study to span a broader range of coping responses in specific difficulties. The BRIEF COPE is one of the best validated and extensively used to measure coping strategies in the health context (García et al., 2018), and divided into problem-focused coping and emotion-focused coping (S. Folkman & Lazarus, 1988) as shown in table 9.

Table 9. Category of coping strategies in BRIEF COPE

Problem-focused coping (Adaptive)	**Emotion-focused coping (adaptive)**	**Emotion-focused coping (Dysfunctional/Maladaptive)**
Active Coping	Acceptance	Behavioural disengagement
Instrumental Support	Emotional Support	Denial
Planning	Humour	Self-Distraction
	Positive Reframing	Self-Blaming
	Religion	Substance Use
		Venting

Precisely, the Brief COPE will measure students' response in coping and encounter with emotional consequences by either approaching or avoiding the stressors during rotation in ER and ICU during COVID-19 pandemic. The ranges of score will interpreted the level of coping. The questionnaires includes of 28 items statements which consisting of 2 subscales with measure of 14 total conceptually subscales of coping reaction as shown in table 10. The self-report statement will answered on a four-point Likert-type response from: (1) I have not been doing this at all, (2) I have not been doing this at all, (3) I have been doing a medium amount, and (4) I have been doing this a lot.

3.9 INTERVENTION DEVELOPMENT FRAMEWORK

The UK Medical Research Council (MRC) framework is adopted to guide the development and evaluation of the complex intervention. The MRC framework given clear guidance in how theory and existing evidence significantly influence the intervention to propose a stepwise approach to boast the evidence (Sutton, 2014). Despite some critics that the phases are more linked to drug evaluation than non-pharmacological treatment, the MRC framework has extensive evidence in providing the model's flexibility to guide the research

decision-making (Mrc, 2000). Therefore, in figure 5 summarises the interaction among the four phases on MRC framework, whilst the reporting section shown in separate stage.

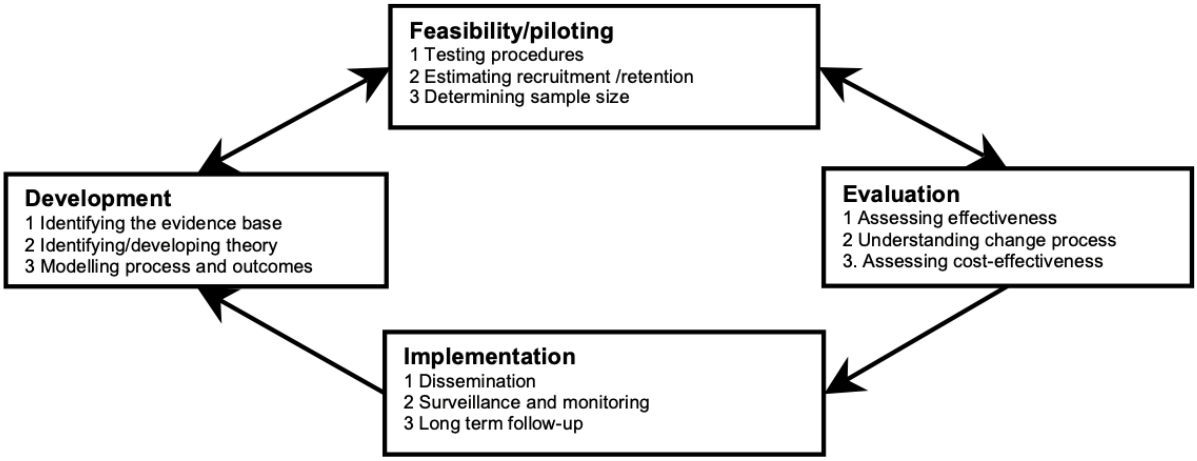

Figure 4. Phases and key elements of development process in MRC framework (Sutton, 2014)

3.10 DEVELOPMENT AND MODELING PHASE

Following the MRC framework, the evidence base and theory for the intervention development for this study was identified the theoretical basis throughout literature review. Therefore, in response to perceived clinical nursing students' needs for psychological support in pre-clinical sessions before ED and ICU rotation alongside the pandemic, the psychoeducation intervention pre-clinical program (PIPCP) for the clinical nursing student will be delivered in the experimental group. The core principles of PIPCP is to engage students' knowledge in early recognition of anxiety and improve the coping ability to adapt the crisis situation adequately. Hence, giving the concept of the nature improvement of students' needs with ranges of human response and the complexity of coping style strongly needed in pre-clinical preparation.

A structured psychoeducational intervention known as helpful therapeutic activities throughout the therapy process which does not require expertise and practitioners to have a highly developed theoretical background (Jaime, 2006). Likewise, the receivers may potentially gain the knowledge from additional information and provide new dimensions to improve coping ability, effects to activating and reinforcing the support systems by implemented in small number of participants. (Ghasemi et al., 2020) emphasized that bringing nursing students in groups may strategically increase nursing students' engagement in pre-clinical training and the interaction is more efficient than solely psychotherapy (Wessely et al., 2008).

Psychoeducation appeared was officially introduced by C.M. Anderson in 1980 and nowadays evolved as a standard treatment for mental health issues within the framework of a cognitive-behavioural approach. From theoretical level, the principles and aim of the intervention are influenced by the guidelines for evidence-based practices developed by the American Psychological Association's (APA) Task Force on Promotion and Dissemination of Psychological Procedures (1999). This frameworks spotlighted the problem-focused coping and role-play group support to construct the cognitive and coping skills as the basis concept of how anxiety and coping style in both problem-focused and emotion-focused coping techniques may bring positive affect to individual's well-being (Lukens & McFarlane, 2004).

3.10.1 Modelling process

The main content of intervention was initiated based on personality and coping theory from (Carver & Connor-Smith, 2010), which identified 14 coping responses and classified them into two main coping strategies: problem-focused coping and emotion-focused coping. The PIPCP will entail active coping and acceptance coping as the main coping strategies to reinforce nursing students' adaptive coping as described in PIPCP's setting (table 11).

Table 11. The psychoeducation intervention pre-clinical program (PIPCP) setting.

Study design	Parallel group with single arm design
Component	Education, knowledge transfer and motivation interviewing in small group consist 15 students.
Content	Anxiety early recognition in any potential adverse impact of plac during COVID-19 in ER and ICU rotation and coping managem particular strategies : problem-focused coping (active coping styl emotion-focused coping (acceptance coping style)
Participant	Indonesian and Scottish final year undergraduate nursing stude Emergency Department and ICU rotation amidst COVID-19.
Deliverer	Research Team
Frequency	Weekly basis session. Time : 60–90 minutes in length Frequency : 3 session/weeks (2 phases in each session)
Main purpose	Developing a nursing student's knowledge of anxiety through pre-clinical training support could encourage students to improve their ability to adopt an adaptive coping style in both problem-focused and emotion-focused coping techniques which has significantly improved students' confidence

Control group	Standard preparation for pre-clinical practice protocol

3.10.2 Component of the intervention

A graphical method from (Perera et al., 2007) is adapted to structure the intervention component by placing the experimental and control intervention side by side on the diagram. The time of randomization and outcome measurement will include in the trial timeline. The intervention component will describe separately, side by side. There are two main components labelled with different letters and shapes as figured in table 12. Object are hinted by square (to depict a fixed nature) and activities by circles (represent the flexibility). In essence, Peplau's developmental nursing model influenced six phases of PIPCP; orientation, identification, exploitation, and resolution. The content, function and details of the intervention are briefly described in following table.

Table 12. Graphical depiction illustration of the intervention and control process (adapted from (Perera et al., 2007)

Timeline	**Psychoeducation intervention pre-clinical program (PIPCP) (Intervention group)**	**Standard Pre-clinical (Control group)**
	a	
Randomization		
Baseline **Pre-clinical session 1** (3 weeks prior clinic)	b c d e	b c d
Pre-clinical session 2 (2 weeks prior clinic)	f	
Pre-clinical session 3 (1 weeks prior clinic)	g h	h
Clinical rotation in ER and ICU	No intervention (10-12 weeks in total, include breaks)	
Last week of clinical practice – Time 4	Measurement of outcomes b	

a	**Training and apperception** the research team about the meeting needs for nursing students in psychoeducation intervention.

b	**Questionnaires** completed by final-year undergraduate nursing students to elicit whether they have need for support associated with their anxiety and coping style.
c	**Demographic data** collected
d	**Introduction session** to clinical practice in ER and ICU rotation (objective and outcome, unit placement, competencies)
e	**Psychoeducation intervention session 1 (small group - 90 minutes)** 1. Orientation phase (30 minutes) Sharing and talking about nursing students perceptions and expectations during their upcoming rotation in ER and ICU. 2. Identification phase 1 – Anxiety's knowledge sharing with narrated slide (60 minutes) Providing information in early recognition of anxiety and any potential stressor factors (definition, what does the anxiety feel like / symptoms, cause of anxiety, natural body response, and treatment methods).
f	**Psychoeducation intervention session 2 (small group - 90 minutes)** 3. Identification phase 2 – Coping management's knowledge sharing (narrated slide 45 minutes) Providing general information of understanding coping management (14 coping strategies includes adaptive and maladaptive coping respond) 4. Exploitation phase 1 – Problem focused and emotion focused coping strategies (narrated slide 45 min) Provided particular information about adaptive coping management in both strategies : problem-focused coping (active coping style) and emotion-focused coping (acceptance coping style)
g	**Psychoeducation intervention session 3 (small group - 90 minutes) :** motivation interviewing 5. Exploitation phase 2 : Problem focused and emotion focused coping strategies(sharing session-45min) Problems, objectives and alternative solutions of those particular coping strategies, as determined by each students are individually discussed. 6. Resolution phase (sharing session-45min) Final-year undergraduate nursing students/participant are encouraged to talk about the whole process.
f	The briefing or pre conference session (1 week prior the ER and ICU rotation begin). Providing information on clinical assignment, learning objectives, roles, orientation week, infection control, Highlighted the cognitive ability (knowledge) and affective skills (attitudes)

3.10.3 Consistency of delivery of the intervention

The psychoeducation intervention pre-clinical program (PIPCP) is guided by Clinical Practice Guidelines for Psychoeducation in anxiety and general Principles of Psychoeducation (Sarkhel et al., 2020). The preliminary briefing will be developed and delivered throughout this guidance by the researcher coordinator to set the standards, required skills communication and essential knowledge for the research team to undertake the session. Therefore, the research team will take an additional psychoeducation training program despite the guideline. This is aimed to ensure the team is fully trained before starting the program, well-managed in the psychosocial areas of need, and ensured consistency.

3.10.4 Control group

In control group, the final-year nursing student's "pre-clinical session" will receive "standard pre-clinical briefing explanations" for forthcoming placement. Briefing activities (Page-Cutrara, 2014) includes :

- Informed clinical outcomes
- Learning objectives
- Clinical environment

- Rotation
- Roles
- Clinical expectations
- Attendance
- Infection control
- Attitude .

Thus, the discussion will continue with the possibilities of associated exposure to some stressors during practice. The standard "briefing" refers to an attempt to develop students' awareness and ability to notice several aspects by anticipating the patient's need, and forming the critical thinking to achieve an excellent clinical judgment in ER and ICU's rotation.

3.11 FEASIBILITY STUDY PHASE

3.11.1 Procedure

Three sessions of the psychoeducation intervention pre-clinical program (PIPCP) consisting of six phases will be conducted with weekly sessions. Each sessions will take about 60-90 minutes in length in a small group comprised of 10 students. Following the clinical practice guideline for group psychoeducation intervention (Sarkhel et al., 2020), a psychoeducation group ideally consist of 4-12 members with number of sessions varies from 5 to 24 times and each session usually last 45-90 minutes in weekly intervals.

Participants will receive PIPCP in three sessions and need to complete the 40 items of STAI, 28 items of BRIEF COPE, and 15 socio-demographic information in baseline and follow up measurement. Baseline measurement will be collected in the first meeting before the intervention begin. The follow-up feedback is expected within one week after completing the full 12 weeks of clinical practice in ER and ICU. The data collection will be conducted through a google link to the online questionnaire.

3.11.2 Participant identification and recruitment

Participants will be identified by the research team from nursing faculty databases. The extraction process selects final-year nursing students scheduled for clinical placement in ER and ICU. Participants with underlying mental health issues or any circumstances that need monitoring by psychology consultation still considered to be included in this study. Thus, once the ethical clearance allows beginning the process, the researcher will send a letter of invitation to participate in this study and an information sheet about the study through nursing school email.

In this step, any reasons for participants being ineligible must be documented. During the confirmation, the research team will clarify a verbal consent to students to be randomized. Once the randomization process is done, students will receive information details of the program. Include the allocation of intervention and appointment details which the researcher organizes in collaboration with the nursing school.

3.11.3 Sample size

The recommendation of Rules of Thumb for Sample Sizes is utilized to determine the sample size for this preliminary study. Specifically, a flat rule of thumb from (Machin *et al,* 2018) is adopted as suggested on a single group in every situation . As listed as various sample size suggestions, estimating sample size from (Birkett & Day, 1994) is chosen which suggested 20 samples for final size implementing an appropriate internal pilot study. Following the adjustment factor, which spotlighted 0,5 for a study with only one group and 1,0 for a study with two groups, Therefore, a minimum of 20 participants of each country will be divided equally to each group in this trial.

3.11.4 Randomisation and allocation concealment

In order to eliminate the bias, the process of randomly assigning the experimental participants is required. Participants will be recruited and randomly assigned to whether in the intervention group or the control group. The randomization process on feasibility study will be randomly stratified into two groups consisting of 10 participants per group of each country. An online randomization programme, randomization.com, will be utilized by an investigator from the researcher team member who should not be involved in the initial recruitment process.

To ensure the allocation concealment, every notification of the randomization schedule and group allocation must be reported to the research coordinator. Highlights the concealment for the time of recruitment to ensure there is no leaking of information which group the participant will be allocated. It will be ensured by using automated randomization systems (e.g. computer-generated), so the participant will not know the intervention or treatment they will receive to minimize the risk of bias.

3.11.5 Blinding

There is a possibility of overestimating the intervention effect if the study does not do the blinding properly. The blinding process in RCT helps reduce the detection and performance bias (Probst et al., 2016). The blinding methods in the feasibility study will be applied similarly in real-size RCT. Therefore, remain to be blinded to group allocation as they might think they are in the intervention group by the research coordinator while the research team member remains blinded to the group allocation. In addition, the team members who responsible for

statistical analysis persist blinded to the group allocation until the data analysis is complete to maintain the successful blinding process. Diversely, the research coordinator is not blinded to group allocation and responsible for the intervention setting.

3.12 EVALUATION PHASE

3.12.1 Focus area of feasibility study and possible outcome

Data collection will organized by utilize the Bowen's approach (Bowen et al., 2009) to investigate the feasibility of pre-clinical psychoeducation intervention. As shown in table 13 below, gives a detailed description of methods for data collection and analyses. The feasibility focus area on this study focus on the acceptability, implementation, and practically.

Table 13. Description areas of focus for feasibility by the Bowen's approach (Bowen et al., 2009)

Area of focus for feasibility	Aspects	Methods for data collection
Acceptability To what extent the intervention is judged as suitable, satisfying or attractive to patients?	Perceived appropriateness	Assessed by patients with SPSS Descriptive statistics (frequencies)
Implementation To what extent the intervention can be successfully delivered to the intended participants?	Efficiency, speed, or quality of implementation	
Practicality To what extent can the intervention be carried out with intended participants using existing means, resources, and circumstances?	The ability of participants to carry out intervention activities	

3.12.2 Data analysis

For statistical analyses will perform using Statistical Package for the Social Sciences (SPSS) software version 27 (SPSS Inc, Chicago, IL). In addition, descriptive statistics will perform to summarise students' demographic information and characteristic of data. Final appropriate statistical test for will be evaluated based on prior feasibility study findings.

Bivariate analysis

The demographic characteristics' differences will be assessed by t-test and chi-squared test in SPSS. A bivariate analysis approach will test the baseline characteristic's comparison between both groups. Therefore, the inferential statistic with t-tests for means and the chi-squared test ($\chi 2$) for proportions will be applied to determining the empirical relationship. The chi-square will test the respondents' characteristics on a categorical scale used while the t-test for on a numerical scale. Similarly, a p=value p=0,05 is also considered statistically significant.

Multivariate analysis

Multivariate analysis of the study will be carried out using the General Linear Model-Repeated Measure (GLM-RM). This test determines the effectiveness of the PIPCP psychology response (coping ability) and the psychology impact (anxiety prevalence). This test is chosen because the dependent variable on a numerical scale needs to be analysed more than one and two measurements run in two countries (Schumacker, 2016). The researcher determined the effect of the confounding variable on the relationship between the independent and dependent variables using the Multivariate Analysis of Covariance (MANCOVA) test. Similar to the prior preliminary study, the set for α level is $p < 0,01$, following the Bonferroni Correction.

3.13 IMPLEMENTATION PHASE

3.13.1 Informed consent

Following the WHO's informed consent template for clinical trial as described in Appendix I, the participants will receive an email with information and invitation letter about the study alongside with informed consent on this study. Participants can contact the research team by email or phone as informed in the invitation and consent letter. Students interested to participating will be asked to reply and fill the informed consent attached on email. Students will be informed that all information and responses are strictly confidential. Thus, the research team will contact students by phone to confirm trial eligibility and offer if they have further questions or doubts.

The researcher needs to follow up and answer any doubts that the participant might have on this step and follow up the informed consent that the participant needs to fill in at least five days prior to the program start. The researcher's responsibility is to obtain informed consent from the participant before starting the program by regularly checking whether informed consent is complete or not before the baseline week.

3.13.2 Confidentiality

Investigators and research staff strictly hold participants' confidentiality as mentioned to participant in consent letter. Include the study protocol, data, documentation, and other

associated information must be in strict confidence. No information regarding the study or data will be revealed to an unauthorized third party without written permission.

3.13.3 Participant's withdrawal

Participants must not be forced to participate. They can decide to withdraw from the study anytime. The participant also considered to withdrawal by research if needed and feel to be in the best interest of the students. Any process on this step must be documented as a loss to follow-up.

3.13.4 Managing adverse event

Nevertheless, this study is a psychological intervention and remains a potential unpredictable events. Any change to their psychological status must be reported and documented in the participant's report to ensure the effect characteristics are updated. Any incidence and change in management will alter the intervention. Therefore they will be treated as lost to follow-up, and the reason need be reported.

3.13.5 Follow-up of participants

The Participant in both groups will be requested to fill the follow-up questionnaires within one week after completing the full 12 weeks of clinical practice in ER and ICU. Although the initial intervention will be conducted face-to-face, the baseline measurement and follow-up questionnaires will be conducted through a web survey google form for environmental purpose and linked by email at a specific time. The feedback is expected to come within one week after the follow-up questionnaire is sent. This method may seem conventionally but effective to minimized the potential lacking of Participant's intentions (Serdar et al., 2021).

3.13.6 Dissemination policy

The study results will be disseminated through a manuscript for publication in a respected peer- reviewed journal in a timely fashion. The Journal choice likely be relating to the fields of nursing education and mental health nursing.

3.14 DATA MANAGEMENT

3.14.1 Data Collection

The data will be cheeked for the completeness and accuracy by research coordinator. Therefore, the data will be used once input the information in computer database. To insure the

accuracy, the database will be double check. No investigation of the data will start until the accurate database assured.

3.14.2 Data Storage

The researcher coordinator, as data controller, is responsible for ensuring that personal data is held appropriately and may justify requiring more significant protective measures, such as access controls, encryption, and audited disposal. The data will be collected in online questionnaires using a web survey through a google form. Thus, the link in the e-mail goes directly to the questionnaire, inadvertently bypassing the web page of information, meaning respondents never see it. At the start of the questionnaire, consent to use their data is requested and stated that the responses will be strictly confidential and held securely. By this cloud-based data management, once the respondents finished giving their responses, the computer could not caches the questionnaire pages, including answers, leaving them not accessible to other computer users.

3.14.3 Methods to protect the privacy

Google forms is chosen for easier and safer storing data. It has secure against unauthorized access and use, prevention of accidental loss or damage, and eventual disposal. Google forms has security protocols that are in line with accepted standards in data collection. They use a protected 256 bit SSL connection and compliant with PCI, GDPR, and HIPAA. Google forms Terms and Conditions has an anti-phishing system that evaluates each form to collect sensitive information. Therefore, a possible phishing activity will be prevented immediately, and accounts asking for such information will be blocked

3.14.4 Duration the data will be kept

The electronic data responses are automatically stored on the researcher's cloud for years (not in the public storage devices, such as computer disks, portable hard drives, and CDs). The link between respondents computers and the computer hosting the questionnaire is encrypted, and communications between them cannot be intercepted. This cloud-based service provides convenient access to data and less risk associated with storing data on the cloud.

3.15 ADMINISTRATIVE ASPECTS

3.15.1 Ethical and regulator considerations

All ethics forms must be submit to be reviewed by Napier University Ethics Committee, Lothian Research Ethics Committee (LREC) and POLTEKKES KEMENKES Pontianak

Ethics Committee Indonesia. Ethical clearance of protocol approval needs to be obtained before the commencement of the study. The external ethical clearance is not compulsory in this study.

3.15.2 Amendments

This trial will be conducted with the recent version as proposed. Any changes to protocol or consent that might affect study design, participant safety, or participant willingness are considered an amendment and will be written and filled as an amendment to the protocol. If there is any amendments that need to be submitted to the ethical committee for approval before becoming effective

3.15.3 Research team

Creating the research team is required to ensure an effective and productive test of this intervention's efficacy. The team members may complement each other to balance the knowledge and diverse skills. There are :

- Principal Investigator (PI) include the research coordinator.
  To ensure the ethical issues of the study include participant's rights, safety, recruitment, randomization and any regulation supported. Additionally, to make sure the members team have appropriate education, training and qualifications to deliver intervention tests. This study will be coordinated by the researcher (FA), and the research team will consistently run the follow up-trial.
- Administrator
  Mainly become the keepers of any delegation of authority and responsible to draft, edit, and submit any documents, protocol, amendments, and reports.
- Data coordinator
  Data management and ensuring data accuracy in timely manner. Include data analysis that must be extracted from multiple sources and entered into electronic databases to identify the findings from data points.

3.15.4 Funding source

Funding for this project will be proposed to the Indonesian Education Scholarship (BPI) for doctoral programmes fully funded by the Indonesian Government through the National Trust for Education Development (DPPN). It is managed by LPDP to finance higher education postgraduate courses in higher education in overseas institutions.

CHAPTER 4
CRITICAL REVIEW OF PROPOSAL

The outcome of this proposal is to assess the feasibility of an experimental randomised control trial in psychological intervention in future. Despite this proposal outcome expected a positive impact in many research settings to evaluate the quality, some strengths and challenges also identified through this chapter to assess the intervention.

4.1 STRENGTHS

4.1.1 Justification for definitive RCT

Randomised controlled trials (RCTs) is known as the most rigorous approach to testing the effectiveness of an intervention and bring positive impact in many research setting to assess the quality, but also need to be noted that RCT may not be the most appropriate design to evaluate the treatments or intervention. Therefore, by conducting a feasibility study will provide valuable information an justification inform subsequent full-size RCT Prevention from methodological design flaws

4.1.2 Face-to-face intervention

The indecisive pandemic has affected nursing students' well-being due to switching off to the virtual mode and hybrid mode (combined online and presential class). While complying with the prevention protocols, recently, many students expressed their rebuffing about online meetings and showed the strong need to have face-to-face interaction instead of online

discussion (Agu et al., 2021). Therefore, there is a strong possibility that nursing students will attend the psychoeducation intervention pre-clinical program (PIPCP) on face-to-face sessions alongside the scheduled offline class following clinic briefing. This may upsurge the possibility will minimize the rejection of participants to be randomized into the group with the PIPCP.

4.1.3 Novelty in international comparison

There are finite existing studies about nursing students' phycological impact on clinical placement during Covid-19. This proposal expected novel findings in the nursing student's clinical practice on psychoeducation intervention in complex units' rotation (ER and ICU) in a particular setting. Conducting in international comparison expects better exploration in variations among students and offers additional strategies to optimise nursing education during a pandemic in responding, mitigating, and recovering quickly from future occurrences in those areas mentioned.

4.1.4 Inexpensive

It offers beneficial for future implications by the therapy process, which does not require expertise and less cost. In addition, the easiness of implementation may provide new dimensions to improve coping ability and effects on activating and reinforcing the support systems.

4.2 CHALLENGES

4.2.1 Less rigour

Running a feasibility study may not necessarily resemble the full-size RCT final design, yet typically still replicating and being more flexible and less rigour in design.

4.2.2 Randomisation allocation

Developing components in intervention might not be adequate enough in a large cohort of participants. Likewise, despite the enormous effort to reduce the risk of bias, the randomisation allocation may falsely influence with some intention from participants in the control group that may realise they are not in the intervention group. This proposal's randomisation process is not clearly described as ideally described, such as the design of randomisation schedule, existing stratification, and log randomisation attempts. Also, did not very clearly emphasise the use of stratification and potentially induce the lack of stratification that may cause insufficient numbers for meaningful analysis.

4.2.3 Time-consuming

An RCTs of psychological intervention are usually time-consuming and costly consuming. The trial's length on this study has the possibility of risk of follow-up (LFT), and

the measurement could be biased. This trial planning may arise an issue in the recruitment process, from overly selective inclusion criteria, inappropriate exclusion criteria, and inadequate detection of potentially recruitable in the screening process remains vogue in this study.

CHAPTER 5
CONCLUSION

5.1 CONCLUSION

The COVID-19 pandemic undeniably affected students' psychological and anxiety level among final year nursing students arose in clinical placement setting. In the meantime, clinical students were struggling to deal with stressors and applied various coping mechanisms without knowing which coping strategies may positively affect. Particularly for final-year nursing students who rotated in complex units (ER and ICU), who predominantly adopt maladaptive emotional-coping mechanism. A psychoeducation intervention may strategically increase nursing students' engagement in pre-clinical training. Therefore, the feasibility of psychoeducation intervention will be examined with a single-arm randomised controlled trial (RCT) in order to address the aim of this research study. Stressed on psychosocial intervention to reduce nursing students' anxiety by enhancing the ability to adopt an adaptive coping technique which focused on Problem-focused coping by active coping and emotion-focused coping with acceptance coping style. during clinical placement in the emergency department and critical unit during the COVID-19 pandemic. The State-Trait Anxiety Inventory (STAI) and Brief-Coping Orientation of Problem Experienced inventory scale (BRIEF COPE) will be used to measure the variables.

The trial will compare a study group comprised of the intervention and control groups. The psychoeducation intervention pre-clinical program (PIPCP) will be given at three sessions, and the outcome measurements will take at baseline and the end of clinical rotation. The final-year undergraduate nursing students from Indonesia and Scotland will be recruited. The

international comparisons are considered to explore the possible variations among student experiences in different countries and settings (developed and developing countries), which could inform strategies to optimize nursing education during a pandemic. This trial will follow the Consolidated Standards of Reporting Trials (CONSORT) 2010 guideline to conduct and report of this RCTs non-pharmacologic study (Eldridge et al., 2016). This chapter will further discuss the design, methodology, justification of the tools used, and analysis methodology of the study underpinning the thesis.

5.2 IMPLICATION FOR FUTURE STUDY

The result will consider whether the PIPCP has promising enough long-term impact and produces relevant outcomes to warrant the time and expense before performing full-size RCT with several expectations of implementing future research.

1. Raise the potential reliability and validity feedback by testing the intervention methodology and how the intervention in full-size RCT can be done. It will portray an essential strength in practicalities such as the recruitment process, the ability to deliver the intervention properly in a specific setting, participant retention, acceptability, adherence, participant retention, and adequacy of outcomes data. Especially in this study, where is no data available from previous literature of baseline status indication found in a clinical placement in ER and ICU setting. The estimation of the sample size is the legitimate purpose of generating the representative sampling calculations in a full trial. Finally, any feedback from statistical comparisons between both randomized groups will be treated and reported with statistical control. This stage's interpretation will determine the next phase to run an adequate definitive RCT.
2. Activating the psychoeducation activities in nursing education which potentially raise final-year nursing students' awareness and early recognition in complex unit rotation will improving the coping ability to adapt to the crisis adequately. The intervention is believed will improve students' performance, confidence and willingness to pursue a career in nursing. Therefore, in particular, student's readiness to deliver high-quality care in every aspect and condition is expected to be gained.

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Appendices I. Informed Consent

INFORMED CONSENT

Psychosocial Intervention pre-clinical program (PIPCP)

I am Fialisa Asriwhardani, a Master Student in Emergency and Critical care nursing at The Edinburgh Napier University under Erasmus Mundus Joint Master Degree program. I am conducting a study to test the effectiveness of the Psychosocial Intervention pre-clinical program (PIPCP) to enhance students' active coping ability during clinical placement in the Emergency Department and Critical unit during COVID-19 Pandemic. The further information will be explained below as you being invited to be part of this research. Please do not hesitate to ask me if you have questions later.

Anxiety among nursing students during their clinical placement amid COVID-19 is risen recently, which reported the phycological impact and students' coping with clinical placement during the COVID-19 Pandemic was finite. Some students have represented an aggravated emotional feeling that emerges vary of complex coping mechanisms. Since the coping mechanism of nursing students affect their physical and mental health and the quality of care, identifying adaptive coping strategies of nursing students is essential for early interventions. The reason for doing this study is to assess the efficacy of encouraging intervention programs among nursing students before starting the clinical placements on complex units in the Emergency Department and Intensive Unit Care in the middle of COVID-19. Therefore, this research will be conducted on psychological intervention to reduce nursing students' anxiety and enhance positive responses to help students find effective coping meaning in crisis during their rotation in the emergency department and critical care unit.

You are invited to participate in this study because you are final-year nursing degree student who will have clinical rotations in the Emergency Department and ICU during the Pandemic, above 18 years old, and had fulfilled the Emergency Nursing and critical care's subject before entering clinical rotation in those units. Your participation in this study is voluntary.

The psychoeducation intervention pre-clinical program (PIPCP) will consist of three sessions within three weekly sessions. The sessions will take about 60-90 minutes in length in a small group comprised of 15 students approximately. The main content itself was initiated based on personality and coping theory. As aforementioned, some participants in this study may not be receiving the intervention which we are testing. We will put participant in this

research divided into two groups to do this. The groups are randomized by chance. Participants in one group will be given the intervention, while participants in the other group will be given a non-intervention session. It is important that neither you nor we know which of the two treatments you are given. This is the best way we have for testing without being influenced by what we think or hope might happen to compare which of the two has the best results.

The research team member will be looking after you and the other participants very carefully during this study. If there is anything you are concerned about or bothering you about the research, please talk to one of the other researchers or me. In this survey, you will be asked to complete the questionnaire prior to the treatment and one week after the clinical placement. It will assess your anxiety level and how you deal with it through coping strategies during clinical practice in the emergency room and critical unit. It will take you approximately 10 minutes to complete. Your responses to this questionnaire are strictly confidential. Any information about you that will be collected during the study will be put away, and no one but the researchers will be able to see it.

"I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it, and any questions that I have asked have been answered to my satisfaction. Therefore, I consent voluntarily to participate as a participant in this research."

By clicking "I agree" below, you indicate that you are at least 18 years old, have read this consent form, and agree to participate in this research study. You are free to skip any question that you choose.

I Agree *I Do Not Agree*

Thank you for your participation.
Fialisa Asriwhardani
Master Student of The Emergency and Critical care nursing
Edinburgh Napier University (Erasmus Mundus Joint Master Degree program)

If you have any questions concerning your rights as a research subject, you may contact me at fialisaasriwhardani@gmail.com or 40524651@live.napier.ac.uk.

Appendices II. Questionnaire

QUESTIONNAIRE*

*(*will be conducted in online questionnaire through google form)*

A Feasibility Study of Psychosocial Intervention Pre-clinical program (PIPCP) to enhance the active coping among clinical nursing students in Emergency Department and Critical unit amidst COVID-19 Pandemic in Indonesia and Scotland

Part 1: Sociodemographic		
Questions		**Answers**
1	What is your gender?	( ) Female ( ) Male
2	What is your age?	……years old
3	What is your grade level?	( ) 3rd Grade ( ) 4th Grade
4	What is your nationality?	……
5	What is your religion	( ) Muslim ( ) Christian ( ) Hindu ( ) Buddhist ( ) Irreligious and atheist ( ) Jewish ( ) Taoist/Confucianist/Chinese traditional religionist ( ) Sikh ( ) Others……..
6	Have you got infected with COVID-19?	( ) Yes ( ) No
7	Do you think your competencies may positively or negatively affected by clinical placement in the Emergency Department and Intensive Critical unit during the COVID-19 Pandemic?	( ) Yes, it positively affected ( ) Yes, it negatively affected ( ) No, it had no effect
8	Where do you obtain coronavirus information?	( ) Scientific journal ( ) Social Media and electronic ( ) Official statement from Ministry of Health

9	Are you afraid that coronavirus can be transmitted to you, your family, or your circle?	( ) Yes ( ) No
10	Are you sometime afraid to have a contact with patient during clinical practice in the Emergency Department and Intensive Critical unit during the COVID-19 Pandemic?	( ) Yes ( ) No
11	Are you get the COVID-19 vaccination and booster before clinical practice in the Emergency room?	( ) Yes, vaccine : ( ) No
12	Do you think you are safe during clinical practice in the Emergency room and Intensive Critical unit after being vaccinated?	( ) Yes ( ) No
13	How would you evaluate the undergraduate nursing curriculum in terms of knowledge and skill level to help you deal with clinical practice in the Emergency Department and Intensive Critical unit during the COVID-19 Pandemic?	( ) Sufficient ( ) Partially ( ) Insufficient
14	How would you evaluate the pre-clinical psychoeducation intervention program to help you deal with clinical practice in the Emergency Department and Intensive Critical unit during the COVID-19 Pandemic?	( ) Sufficient ( ) Partially ( ) Insufficient

Part 2. The State-trait Anxiety Inventory (STAI)

Please describe yourselves and your feeling (before and after) clinical placement in the Emergency Department and Intensive Critical unit during the COVID-19 Pandemic on this statement below. There is no right or wrong answers.

Do not spend too much time on any one statement but choose the answer which seems to describe your feelings best.

State Anxiety (S-Anxiety)		
Statements		**Answers**
1	I feel calm	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
2	I feel secure	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
3	I feel tense	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
4	I feel strained	(1) Not at all (2) Somewhat

		(3) Moderately so (4) Very much so
5	I feel at ease	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
6	I feel upset	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
7	I am presently worrying over possible misfortunes	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
8	I feel satisfied	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
9	I feel frightened	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
10	I feel uncomfortable	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
11	I feel self-confident	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
12	I feel nervous	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
13	I feel jittery	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
14	I feel indecisive	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
15	I am relaxed	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
16	I feel content	(1) Not at all (2) Somewhat (3) Moderately so

		(4) Very much so
17	I am worried	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
18	I feel confused	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
19	I feel steady	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
20	I feel pleasant	(1) Not at all (2) Somewhat (3) Moderately so (4) Very much so
Trait Anxiety (T-Anxiety)		
Statements		**Answers**
21	I feel pleasant	(1) Almost never (2) Sometimes (3) Often (4) Almost always
22	I feel nervous and restless	(1) Almost never (2) Sometimes (3) Often (4) Almost always
23	I feel satisfied with myself	(1) Almost never (2) Sometimes (3) Often (4) Almost always
24	I wish I could be as happy as others seems to be	(1) Almost never (2) Sometimes (3) Often (4) Almost always
25	I feel like a failure	(1) Almost never (2) Sometimes (3) Often (4) Almost always
26	I feel rested	(1) Almost never (2) Sometimes (3) Often (4) Almost always
27	I am “calm, cool, and collected”	(1) Almost never (2) Sometimes (3) Often (4) Almost always
28	I feel that difficulties are piling up so that I cannot overcome them	(1) Almost never (2) Sometimes (3) Often

		(4) Almost always
29	I worry too much over something that really doesn't matter	(1) Almost never (2) Sometimes (3) Often (4) Almost always
30	I am happy	(1) Almost never (2) Sometimes (3) Often (4) Almost always
31	I have disturbing thoughts	(1) Almost never (2) Sometimes (3) Often (4) Almost always
32	I lack self-confidence	(1) Almost never (2) Sometimes (3) Often (4) Almost always
33	I feel secure	(1) Almost never (2) Sometimes (3) Often (4) Almost always
34	I make decisions easily	(1) Almost never (2) Sometimes (3) Often (4) Almost always
35	I feel inadequate	(1) Almost never (2) Sometimes (3) Often (4) Almost always
36	I am content	(1) Almost never (2) Sometimes (3) Often (4) Almost always
37	Some unimportant thought run through my mind and bothers me.	(1) Almost never (2) Sometimes (3) Often (4) Almost always
38	I take disappointment so keenly that I cannot put them out of my mind	(1) Almost never (2) Sometimes (3) Often (4) Almost always
39	I am a steady person	(1) Almost never (2) Sometimes (3) Often (4) Almost always
40	I get in a state of tension or turmoil as I think over my recent concerns and interests	(1) Almost never (2) Sometimes (3) Often (4) Almost always

Part 3. The Brief Cope to assess coping strategies
Please select one statement most fit to describe yourself when you were handling any negative feelings (before and during) clinical placement in the Emergency Department and Critical Unit during the Covid-19 pandemic below.
There is no right or wrong answers. Do not spend too much time on any one statement but choose the answer which seems to describe your feelings best.

	Statement	Answers
1	I've been turning to work or other activities to take my mind off things	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
2	I've been concentrating my efforts on doing something about the situation I'm in	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
3	I've been saying to myself "this isn't real".	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
4	I've been using alcohol or other drugs to myself feel better.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
5	I've been getting emotional support from others	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
6	I've been giving up trying to deal with it.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
7	I've been taking action to try to make the situation better.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
8	I've been refusing to believe that it has happened.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
9	I've been saying things to let my unpleasant feeling escape	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot

10	I've been getting help and advice from other people	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
11	I've been using alcohol or other drugs to help me get through it	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
12	I've been trying to see it in a different light, to make it seem more positive	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
13	I've been criticizing myself.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
14	I've been trying to come up with a strategy about what to do	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
15	I've been getting comfort and understanding from someone	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
16	I've been giving up the attempt to cope.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
17	I've been looking for something good in what is happening.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
18	I've been making jokes about it	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
20	I've been accepting the reality of the fact that it has happened.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
21	I've been expressing my negative feelings.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
22	I've been trying to find comfort in my religion or spiritual beliefs.	(1) I have not been doing this at all (2) I have been doing this a little bit

		(3) I have been doing a medium amount (4) I have been doing this a lot
23	I've been trying to get advice or help from other people about what to do	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
24	I've been learning to live with it.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
25	I've been thinking hard about what steps to take.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
26	I've been blaming myself for things that happened.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
27	I've been praying or meditating.	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot
28	I've been making fun of the situation	(1) I have not been doing this at all (2) I have been doing this a little bit (3) I have been doing a medium amount (4) I have been doing this a lot

Appendices III. Consultation Form

1st Meeting

DATE OF MEETING **Duration of meeting**	30 August 2021 60 minutes (Videoconference: Teams) 15:30-16:30
Points for discussion 1. Initial meeting of ethics clearance 2. Research topic	**Action points** 1. Conducting the research proposal due to strict timing to achieve the ethical clearance 2. Deciding on research topic: Anxiety and coping strategies among nursing students on clinical placement in the Emergency Room and ICU during the Covid-19 Pandemic in Scotland, and Indonesia: a cross-sectional study. 3. An observational analytic cross-sectional study will be conducted using an online survey in three undergraduate nursing education institutions. 4. Searching through database and reading related research
Agreed timeframes	8 Days
DATE and time OF NEXT MEETING	8 September 2021 (14:00-14:30)

2nd Meeting

DATE OF MEETING **Duration of meeting**	8 September 2021 30 minutes (Teams Meeting) 14:00-14:30
Points for discussion 1. Review the initial research proposal 2. Research design 3. Reading existing related research	**Action points** 1. Learning how to conduct systematic approach for literature review. 2. An observational analytic cross-sectional study will be conducted using an online survey in three undergraduate nursing education institutions. 3. Searching through database and reading related research
Agreed timeframes	26 days
DATE and time OF NEXT MEETING	5 October 2021 (10:00-11:00)

3rd Meeting

DATE OF MEETING **Duration of meeting**	5 October 2021 60 minutes (Face to face) 10:00-11:00
Points for discussion 1. Timetable dissertation 2. PICO formulation 3. First keywords from research question 4. Aims for systematic review 5. Reading existing related research for extraction process	**Action points** 1. Deadline supervision 2. Defining PICO 3. Defining research question for literature review : "What were pre-registered nursing student's anxiety and coping strategies on their clinical placement during the COVID-19 Pandemic?". 4. Establishing the quality of the published literature 5. To investigate anxiety and coping when pre-reg students on placement during pandemic.

	6. To identify gaps in literature to inform the direction of future research 7. Searching through database and reading related research
Agreed timeframes	10 days
DATE and time OF NEXT MEETING	15 October 2021 (14:30-15:30)

4th Meeting

DATE OF MEETING **Duration of meeting**	15 October 2021 60 minutes (Teams Meeting) 14:30-15:30
Points for discussion 1. Review systematic review's methodology draft 2. Review the search result data extraction 3. Updated methodology 4. Search result reading 5. Defining search limitation 6. Deciding on eligibility criteria	**Action points** 1. Continue the draft with PRISMA framework, 2. Continue reading the search result and extraction process 3. Deciding the integrative review for synthesize the findings. 4. Search limitation is published year in last 3 year during COVID-19 Pandemic –, setting is in Clinical placement, English document.
Agreed timeframes	10 days
DATE and time OF NEXT MEETING	15 October 2021 (14:30-15:30)

5th Meeting

DATE OF MEETING **Duration of meeting**	27 October 2021 60 minutes (Face to face) 14:30-15:30
Points for discussion 1. Review systematic review's extraction draft and study characteristic 2. Review the search result data extraction 3. Review the aim and research question 4. Review the themes finding	**Action points** 1. Making score point to appraise the articles using MMAT 2. Re-structure study characteristic by sub-heading and re-generalize the findings of pooled literature 3. Re-define the research focus and the articles will only focus to clinical placement during covid-19 4. Themes finding only cover the essential part , narrow down from the research question
Agreed timeframes	14 days
DATE and time OF NEXT MEETING	11 November 2021 (13:00-14:00)

6th Meeting

DATE OF MEETING **Duration of meeting**	11 November 2021 60 minutes (Face to face) 14:30-15:30
Points for discussion 1. Review critical appraisal 2. Restructuring the study characteristic 3. Review systematic review's key new themes findings	**Action points** 1. Critical appraisal approved. 2. Re-structuring the study carat eristic into sub section and add data analysis. 3. Develop more to the current themes findings and find the gaps of literature
Agreed timeframes	14 days
DATE and time OF NEXT MEETING	2 December 2021 (13:00-14:00)

7th meeting

DATE OF MEETING **Duration of meeting**	2 December 2021 60 minutes (Face to face) 12:00-13:00
Points for discussion 1. Review the themes findings 2. Define Gap in literature 3. Research proposal plan 4. Introducing MRC Framework 5. Define the focus of intervention	**Action points** 1. Finalize the themes 2. Making highlights for gaps 3. Defining the research proposal for experiment study, Introducing MRC Framework, develop intervention to tested 4. How emotion focused coping will have affect to tested
Agreed timeframes	15 days
DATE and time OF NEXT MEETING	17 December 2021 (11:00-12:00)

8th Meeting

DATE OF MEETING **Duration of meeting**	17 December 2021 60 minutes (Teams Meeting) **11:00-12:00**
Points for discussion 1. Review the literature review final draft 2. Review the research proposal topic 3. Review the proposal design for psychoeducation intervention (research question, methods, hypothesis, intervention, variables)	**Action points** 1. Topic : A RCT on the Efficacy of Psychosocial Intervention to enhance the active coping among clinical nursing students in ER and ICU amidst COVID-19 Pandemic in Indonesia and Scotlant" 2. MRC framework to develop intervention 3. Define for RCT parallel design single arm, component, deliverer, participants, dosage, main purpose, measurements and control. 4. Define the variables, independent variable: Psychoeducation intervention and Dependent variable (coping ability and anxiety prevalence) 5. Define the research question :What is the effect of pre-clinical psychoeducation intervention to enhance nursing students' ability to adopt an adaptive coping style in the ER and ICU during the Covid-19 ? 6. Define the objective : To reduce the anxiety and establish the effect of psychoeducation intervention
Agreed timeframes	16 days ((Turnitin Submission)
DATE and time OF NEXT MEETING	13 January 2022 (11:00-12:00)

9th meeting

DATE OF MEETING **Duration of meeting**	13 January 2022 60 minutes (Face to face) 11:00-12:00
Points for discussion 1. Review the proposal draft 2. Re-focus to feasibility study following MRC framework 3. Attention to word count to avoid the penalty (less than 16.000 excluded tables and appendix)	**Action points** 1. Adjust the proposal to feasibility study dan restructure the section following MRC framework
Agreed timeframes	7 days January 20th, 2022

Table 4. Phrase in databases

Databases /Registers	Phrase	Number of Records
PubMed	(Any field) Anxiety **OR** anxiousness OR Hypervigilance OR mental health **AND** (Any field) Coping **OR** Coping Strategy **OR** Coping Skills **OR** Adaptive Behaviour **OR** psychological adaptation **AND** (Any field) Nursing students **OR** Pupil Nurses **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Internship **OR** Hospital **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic **OR** COVID 19 Pandemic	4.165
Science Direct	(Any field) Anxiety **OR** anxiousness OR Hypervigilance OR mental health **AND** (Any field) Coping **OR** Coping Strategy **OR** Coping Skills **OR** Adaptive Behaviour **OR** psychological adaptation **AND** (Any field) Nursing students **OR** Pupil Nurses **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Internship **OR** Hospital **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic **OR** COVID 19 Pandemic	1.516
Cochrane	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	331
CINAHL	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	224
ProQuest	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR**	961

	Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	
Medline	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	451
Psyc Info	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	663
Web of Science	(Any field) Anxiety **OR** anxiousness **AND** (Any field) Coping **OR** Coping Strategies **OR** Adaptive Behaviour **AND** (Any field) Nursing students **OR** Undergraduate Nursing students **OR** Baccalaureate nursing **AND** (Any country) Clinical Placement **OR** Nursing education **OR** Clinical education **AND** (Any country) COVID 19 **OR** COVID-19 Pandemic	493
Clinicaltrial .gov	Anxiety OR Coping Nursing Student Covid-19	3
Google Scholar	Anxiety coping strategies nursing students covid 19 clinical placement.	1

Table 10. The BRIEF COPE Scale classification and questions

Main Scale	No	Subscale	Question Number	Question
Emotion-focused coping	1	Acceptance	20	I've been accepting the reality of the fact that it has happened.
			24	I've been learning to live with it.
	2	Emotional Support	5	I've been getting emotional support from others
			15	I've been getting comfort and understanding from someone
	3	Humour	18	I've been making jokes about it
			28	I've been making fun of the situation
	4	Positive Reframing	12	I've been trying to see it in a different light, to make it seem more positive
			17	I've been looking for something good in what is happening.
	5	Religion	22	I've been trying to find comfort in my religion or spiritual beliefs.
			27	I've been praying or meditating.
Problem Focused	6	Active Coping	2	I've been concentrating my efforts on doing something about the situation I'm in
			7	I've been taking action to try to make the situation better.
	7	Instrumental Support	10	I've been getting help and advice from other people
			23	I've been trying to get advice or help from other people about what to do
	8	Planning	14	I've been trying to come up with a strategy about what to do
			25	I've been thinking hard about what steps to take.
Dysfunctional Coping	9	Behavioural disengagement	6	I've been giving up trying to deal with it.
			16	I've been giving up the attempt to cope.
	10	Denial	3	I've been saying to myself "this isn't real".
			8	I've been refusing to believe that it has happened.
	11	Self-Distraction	1	I've been turning to work or other activities to take my mind off things
			19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping
	12	Self-Blaming	13	I've been criticizing myself.
			26	I've been blaming myself for things that happened.
	13	Substance Use	4	I've been using alcohol or other drugs to myself feel better.
			11	I've been using alcohol or other drugs to help me get through it
	14	Venting	9	I've been saying things to let my unpleasant feeling escape
			21	I've been expressing my negative feelings.