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**WELL-BEING OF THE NURSING
STUDENTS STUDYING ONLINE
DURING COVID-19 PANDEMIC**

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ABSTRACT

During the COVID-19 outbreak, traditional face-to-face instruction promptly transitioned into online learning. Many students experienced large and different changes in academic performance in this new learning platform. Nursing students and other students that were taking courses in medical field had a hard time with practical training for the clinical experience during online learning.

The purpose of this bachelor's Thesis is to assess how online learning affects the well-being of nursing students and the support they have received for their online studies, using descriptive literature review. The objective of this thesis is to provide information about how nursing students have experienced online learning, as well as how it has affected their well-being and the support they have received.

Literature review with inductive content analysis was used to estimate the results for this research. Nine reliable articles were analysed regarding the research questions. This study has discussed the well-being of nursing students during learning online and the support that they received for online learning during COVID-19.

The study showed that stress is a major issue for online learning and has had a negative impact on the well-being of nursing students. On the other hand, faculties tried to support the nursing students' mental well-being in online learning during COVID-19. This research suggested that certain measures should be performed to reduce stress and improve the online learning for students, especially to nursing students.

Keywords: Well-being, nursing students, online learning, COVID-19

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1 INTRODUCTION

The first case of COVID-19 was found in January 2020 in Finland. When this COVID-19 pandemic hit, many countries rushed to close their borders to defend lives and livelihood. The pandemic has affected and totally changed our daily life. Social distancing guidelines have led to virtual existence, both personally and professionally changing the way we work, learn, and interact. (WHO 2019.)

The educational processes worldwide were abruptly changed through the COVID-19 pandemic. Without warning or time to prepare for the changes, face-to-face classroom experiences were replaced by online classes. Virtual teaching skills had to be quickly developed, while educational plans had to be restructured. Furthermore, due to the rapid changes, emotional support for students had to be provided. (Camargo et al. 2020.)

With concerns of COVID-19 viral exposure and the need to protect yourself and others, many nursing programs had to make changes that removed the students from practical fields and placed them into a virtual and web-based simulation system. As a result, nursing students faced several challenges in online learning after the sudden transition to remote learning. (Konard et al. 2021.)

The new online classroom setting raised a lot of questions among nursing students and their teachers. Some of these were: whether nurses would be able to fulfil their academic requirements as well as their personal responsibilities, whether they would be adequately prepared to take up their nursing role responsibilities and functions without the proper, practical clinical training, whether they would be able to graduate in time, and whether this new situation would cause them psychological distress. (Fitzgerald et al. 2021.)

The purpose of this Bachelor Thesis is to assess how online learning affects the well-being of nursing students and the support they have received for their online studies evaluated through descriptive literature review. The objective of this thesis is to provide information about how nursing student have experienced

online learning and how it has effected on their wellbeing and support they have received.

2 SOUTH-EASTERN FINLAND UNIVERSITY OF APPLIED SCIENCES

Xamk also called the South-Eastern Finland University of Applied Sciences- Xamk- is an institute of higher education that have four campuses in the South Savo and Kymenlaakso regions in Finland. The University focuses on students' wellbeing, technology, and creative industries, and offers different learning of pedagogical solutions to enhance learning irrespective of time and place. (Xamk 2020.)

Xamk offers two degrees program which are bachelor and master. In bachelor field, there are six programs, and in master field, there are four programs. Both programs are taught in English. Xamk has four modern campuses conveniently located in the town center or nearby. Xamk has model learning environments, and each campus has different services to promote the well. (Xamk 2020.)

In the autumn of 2022, Xamk started a new degree program in Nursing. It gives the prospect to study both nursing and Finnish language. The curriculum of the Degree Program in Nursing is based on EU instructions and national guidelines, nursing responsible for general care 180 ECTS credits, including common competence areas of the University applied science. The competence areas are included in the different modules and course. (Xamk 2020.)

3 ONLINE LEARNING

Many of our activities are now conducted online. Working from home has increased and learning via the Internet has become common over the years. This abrupt transition due to the current COVID-19 crisis has led to significantly increased stress for all the students who have already had many workloads. Previous online teaching and learning were usually voluntary and planned, but with emergency transition brought by the COVID-19 pandemic with little or no

proper planning and preparation it became challenging for academicians as well as students. (Lemay et al. 2021.)

3.1 Online learning via Internet as opposed to conventional learning in classrooms

E-learning means an electronic teaching and learning system. Students can study anywhere or any time with e-learning. This e-learning is widely used abroad because students can learn without having a teacher side by side in the present. In addition, students can repeatedly review the lessons again through e-learning. On the other hand, it can also help to prevent spreading of Corona virus attacking the whole world. E-learning is a concept that has existed since 2000s and began to be widely used during the COVID-19 pandemic. (Amat et al. 2021.)

“Online learning is a subclass of distance education and contains a wide set of technology applications and a learning process which includes computer-based learning, web-based learning, virtual classrooms, and digital associations”. (Urdan & Weggen 2000). Online learning is not only focused on the online contexts, but also includes a full choice of computer-based learning platforms and delivery methods, categories, formats, and media such as multimedia, educational programming, simulations, games, and the use of media on fixed and mobile platforms across all discipline areas. In addition, these online courses delivery the content via all electronic media. (Terry 2010.)

“Virtual learning refers to instruction giving in a learning environment where teacher and students are separated by time or space, or both” (Doan 2020). Virtual learning course subjects are carried through IT applications, combination of resources, the Internet, videoconferencing and educated by trainers that lecture online via video or audio. Usually, virtual learning is inside educational customs which present events, resources, and connections within a course structure and deliver for the different stages of assessment. (Doan 2020.)

Remote learning is the run-through of changing from formal learning in-person progress to online and usually not permanent. While emerging new learning resources for online learning, teachers also necessary to arranging and developing for a reforming the units and lessons to work with online teaching strategies. Thus, students will be able to use the new tools or the same material according to their convivences. (Teachthought 2022.)

Education had changed dramatically with the rise of online learning in which teaching is implemented remotely or on digital platforms. Also, it became necessary to practice navigating the requisite software. Based on the evidence, for the students who can access the right technology, learning online can be more effective. However, some nursing student had drawbacks from nursing program while online learning due to technological literacy, the connection, or technical issues, less practical/ onsite or laboratory practices and less interaction with learning peers. (Muthuprasad et al. 2021.)

3.2 Swift transition to online learning and behavioural changes

Transition is described as central to the field of nursing, as well as lead individual to integrate new experience, also correct the person's behavior, and even change the meaning of person. Changes can be simplified or constrained by many conditions such as beliefs and manners, socioeconomic level, preparation, and experience, as well as society and community conditions. Transitions can create reflective adaptations in the lives of each person's significant others and have essential effects for well-being and health. (Meleis et al. 2011.)

The transition is standing a lot of trials for all including students, instructor, faculties staffs and even guidance of the students. The trials may disagree by many countries, faculties, and groups of students. Based on individual educational, each instructors instruct the students to attend online schedules regularly to follow up with online lectures, presentations, or discussion, as well as how to submit the homework/assignments. (Heng et al. 2020.)

Several changes and challenges in students after the transition from face-to-face to online learning platform. These changes and challenges comprised technology arrangement, technology maintenance or support, time management, learning plot, family, and work. Nursing education is different and unique in the attention on practicing as trained the students to become skilled specialists and confidence on clinical knowledges. (Wallance & Schuler 2021.)

Students experiencing a reflective change from face-to-face to distant learning which demanding them to integrate new knowledge and modify their actions. (Wallace et al. 2021). Traditional Vs Online education platform is completely unusual in organizations, settings, obligations, preparations and demands. Students needed to have a high level of self-direction and motivation, to have accomplishment in online learning. (Cherry et al. 2021.)

In this immediate transition to online learning without the proper direction, students' dearth the skill to build in acquiring to start and support expressive communication, as well as to advance theoretical understanding overactive engagement with digital resources. Furthermore, most lecturers who never had online teaching knowledge or establish relevant preparation are possible to distribute unsuccessful online learning. (Chiu 2022.)

3.3 Different learning styles

The meaning of "learning style" indicates different learning preferences and abilities for dissimilar education designs or techniques of instruction. Learning styles education appears in many areas such as psychology and sociology, or education and management, or studies of business. Some ethics explain that learning designs are a quite steady state. (Meg & Gillian 2021.)

The word "learning style" originates from general psychology. Learning style means how learners acknowledge the feature of perceptive, affective, and physiological behaviors that assist as stable indicators, as well as collaborate with, and response to the learning atmosphere. Learning style is a way of working, which reflects causal causes of behavior. Overall, learning style is a

pattern that will give common route to learning behavior. Learning style is also the biologically and developmentally imposed set of appearances that mark the equal instruction technique perfect for some and terrible for others. (Wen 2011.)

As an essential and vital part of a student's learning process, learning style had been continuously reviewed in education and schooling. Learning style initially advanced from the psychology field, psychological categorization, and mental studies many years ago. The expression of "learning style" is normally described as the characteristic of a learner and personalized preference for behaviors of contribution in learning repetition. Supposedly, learning style affords a way into the procedure and envisages consequences of students' learning, and plays a desperate role in intending personalized direction. By knowing a student's learning style for everyone, as well as identifying direction to students' learning style could develop their pleasure, academic performance, and even decrease the necessary time to learn. (Hu et al. 2021.)

During the COVID-19 pandemic, academic institutions were forced to change to new learning programs. Distance teaching-learning and online education was launched as a fast solution. At all stages, every school had been bodily shut down and headed to emergency remote teaching (ERT) since 2020. As an immediate solution, ERT embraces the short-term solution to afford remote methods of carrying direction until the crisis decreases. (Cherry et al. 2021.)

To react to the changes, all the faculty's staffs and instructors through the nation transitioned to the online program, embracing video conferencing, videorecording of lectures, and synchronous and asynchronous online discussions. Instructors published or uploaded the strategies for medical and laboratory knowledges, as well as scenarios related clinical cases, comprehensive discussion and accessible video covering for nursing procedure. It is true that nursing schools all over the countries had primarily relied on face-to-face traditional teaching before the pandemic. But in this unexpected situation of COVID-19 outbreak, 100% online education had become an irreplaceable and amazing solution. (Cherry et al. 2021.)

3.4 Students' attitude towards online learning

Online learning during the COVID-19 outbreak was concerned to be very stressful according to the undergraduate of nursing students. Likewise, report of study conducted in the Kingdom of Saudi Arabia stated that moderate to high level of stress also found among the virtual class during COVID-19 outbreak in the context of pandemic and online learning (AlAteeq et al. 2020). One-third of medical students also revealed that they were very stress with remote electronic exam (Elsalem et al. 2020). Also, it was confirmed in the study that roughly half of the students were not happy or satisfied with online learning. Equally, University students from Lebanon were dissatisfied with their learning online involvement. (Fawaz & Samaha 2020.)

In addition, students have reported increase in stress and anxiety, as well as difficulties in concentrating according to the previous research. In some previous research, students mentioned that learning online is not only technological but also challenging instructionally, including social and emotional challenges of isolation and social distancing. While having proper interaction from the lecturer during online class proved efficient, students usually lacked motivation while studying online which lessened participation from the students. (Muthuprasad et al. 2021.)

Nursing students in Egypt, Nepal and Philippines also reported negative attitudes and opinions regard online learning as well (Diab & Elgahsh 2020; Koirala et al.2020; Oducado & Soriano 2021). Similarly, some Indonesian dentistry students preferred to do distance learning but only less than half of them agree. (Amir et al. 2020). The satisfaction level was noted to be differences in countries between Egypt and Saudi Arabia. (Hussien et al. 2020.)

4 STUDENTS' WELL-BEING DURING COVID-19

The stress of being away from others is the importance of the social and effective dimension of online learning (Doleck et al. 2017; Kaufmann & Vallade 2020).

Well-being of nursing students is a concern as it led to stress and other mental problems after social distancing and isolation. (Akyol et al. 2009.)

4.1 Definition of Wellbeing

Kiefer (2008) has defined “well-being is terms of an individual's physical, mental, social, and environmental status with each aspect interacting with the other and each having differing levels of importance and impact according to the individual”. The theory of well-being has interested research topic for a long time. Well-being is identified in the possession but hard to define or predict. (Nieboer et al. 2005.)

Well-being is fundamentally complicated theory, which surrounding with an individual's consideration of physical, social, and psychological resources that desired to gather a psychological, physical, or social challenge (Dodge et al. 2012). Well-being is a consolidative perception that describes the quality of life with respect to a person's strength and occupational environmental, organizational, and psychosocial factors. Well-being is the involvement of positive insights and existence of useful conditions at work and moreover, allows worker to thrive and achieve their full potential. (Chari et al. 2018.)

Well-being is often described as the state of being comfortable, healthy, or happy and it is important for students because the stresses of university life can get down to all the students and it is important to keep the students to take care of themselves and well-being involved in feeling positive, being comfortable, healthy, and happy.

4.2 Factors that influence wellbeing

To improve the nurses' well-being, it is important to consider the personal and job-related characteristics with well-being in the working environment, as well as well-being in the workplace from the aspect of Human Resource management. Factors that affecting the workplace well-being were connected with factors such as assurance, pressure, gratification, work-life balance, and health improvement, and that sports also played a role. (Dajnoki et al. 2020.)

Kim (2010) mentioned that he studied the effect of well-being in Korean. The clinical nurses stated that the mediating effects of well-being are exhaustion, consideration satisfaction, and job satisfaction. They found that resilience, gratitude disposition, burnout including compassion satisfaction. And the results showed 68.3% of job satisfaction related the total variance of well-being.

4.3 Support that students receive for online learning

After COVID-19 outbreak and increasing of virus infected, significant changes in education methods everywhere over the world. These situations led to many challenges for all higher educational institutes and faculties. As nursing educations and programs mainly depended on traditional learning designs of face-to-face or on-site learning for clinical practice had faced high challenges than other faculties. The American Association of Colleges of Nursing (AACN) continued devoted in reaction to the pandemic by safeguarding faculty which kept the students safe, as well as acknowledged the importance of stability of schooling and learning throughout the outbreak. (Wallance et al. 2021.)

The pressure of COVID-19 pandemic led nursing programs to demonstrate using unusual programs such as studying managements systems and web conferencing. To prevent the students from COVID-19 virus infection and the requirement to preserve individual protective equipment, many courses that related to the medical fields including nursing program were sharply removed from hands-on clinical experiences at health care faculties. And faculties switched these practices with virtual and web-based simulation program. (Wallance et al 2021).

Teachers and instructional designers set up for a framework of student support for online learning by providing purpose supports, as well as proper arrangement of study supplies and events. In effective ways of communication and to reduce the transactional distance, as well as improve students' learning, three categories of support were recognized and used which are instructional, peer, and technical support. (Gayle et al. 2006.)

Instructional support means the guidance to learning which involves answering the question of each student, correcting for the students if they have any misunderstandings, affording clear direction with related sources, and giving beneficial comment on their tasks and presentation. In addition, instructional support includes discussions and course arrangements to inspire and support students to learn and achieve their learning objective. (Gayle et al. 2006.)

Getting support from peer is also important in online learning platform. Students may feel easy to be isolated as lack in communicate with other students. Peer support also called peer-to- peer learning indicates to students supporting of each other in any activities which may related to the academic performance or non-academic performance. peer-to peer learning which mean students supporting each other on academic or non-academic issues. Most students enjoy and learning is effective with peer support during online learning. (Muilengurg & Berge 2015.)

Technical support provides help for any technical problems that students possibly face in online and combined courses. The use of technology has been increasing no matter if courses are online or combined courses. Thus, teachers and instructors make assured that students feel relaxed with online technologies and any technical problems. Also, any technical issue that occurred will be solved out. (Seng et al. 2011.)

5 PURPOSE, OBJECTIVE AND RESEARCH QUESTION

The purpose of this Bachelor Thesis is to assess how online learning affects the well-being of nursing students and the support they have received for their online studies evaluated through descriptive literature review. The objective of this thesis is to provide information about how nursing students have experienced online learning and how it has affected on their well-being and the support they have received.

Research questions:

1. How has online learning affected on the wellbeing of nursing students during this pandemic?
2. What kind of support the nursing students have had for learning online during pandemic?

6 LITERATURE REVIEW

“A literature review is a critical analysis of the state of research on the chosen topic and review of comprehensive research, as well as hypothesis relating to the specific subject” (Cronin et al. 2008). It is a process of reviewing previous work of others within your fields and using that as a basis for your data collection and in generation an outline of the knowledge or information on that topic. The purpose of literature review is to deliver the audience with recent and advance texts on a theme and give the context for additional objective, such as the reason for future study in that field. It helps the readers and other scholars to understand why your research matters. A created literature review gathers information from several resources, and it contains clear exploration and selection strategy. Good systematizing is very important to rise the speed and understanding of the literature. (Cronin et al. 2008.)

The significance of literature review leftovers an investigation and explanation of earlier accessible outcome of research findings. Therefore, it gives references for latest useful conclusions and research methodologies (Rowley and Slack, 2004). For this purpose, conducting a literature review is a useful way to organize data of clinical trials. (Gray 2016, 62.)

By combining conclusions and assessments from various pragmatic results, a literature review can report research questions. Moreover, a literature review is an excellent method of integrating research finding to shows proof on a meta-level and to discover parts in which more research is required, that is a serious module of designing theoretical structures and making theoretical models. (Hannah 2019.)

A literature review is one of the greatest methodological tools to provide answers as it can be used to produce research outlines, classify fissures in research or basically review a specific problem, as well as can be useful if the goal is to engross in principle improvement. (Baumeister & Leary 1997; Torraco 2005.)

Descriptive review is a structured progress which comprises inclusive literature search to fold the necessary research, clarifying and specifying designs and developments among articles (Yang et al. 2012). Descriptive review has amazing advantages such as well-organized to inspect unquantified themes or matters, as well as has potentials to associate qualitative and quantitative method of information gathering. (Kumar 2019.)

6.1 Choosing a review topic and formulating a research question

In this pandemic, most of the nursing students faced difficulties while learning online. I am a nursing student myself and I have been through these difficulties along with other nursing students. I believe the chosen topic would give some help to the nursing students, as well as other students by providing the given information. There were two major issues that I realized after reviewing all the information. The two major issues are well-being of nursing students and the support that nursing students needed while learning online during this COVID-19 pandemic.

Undoubtedly, this is such a wide-ranging topic that it is impossible to be studied in a solitary study. In this framework, assuming a literature review will help the collection and creation of the outcomes of many research findings about how online learning has affected the wellbeing of nursing students and the needed support that nursing students received during this pandemic.

6.2 Information retrieval

There are many ways to assemble the data. The information retrieval for this study was gathered from the databases of EBSCO, Pubmed, Ebook Central, or was applied to the related topic to summarize the results. During data search,

Boolean search like And, OR were applied to discover the results of data that are related to the topic. The key concepts and terms that applied to explored were: Online learning, e-learning, and nursing students, nursing students experience in online learning, well-being, well-being of nursing student, COVID-19 pandemic and supports for students, and support needed for online learning. Table 1

Choosing the research topic comprised two steps. The first step implies the titles and abstracts of the articles which encounter the inclusion criteria. The second stage requires analyzing the entire text of each material. (Bettany-Saltikov 2012, 84.). Inclusion criteria are described as the key structures of the focus population that the author will use to response their research interrogation. Demographic, clinical, and geographic characteristics are normally included in inclusion criteria. In difference, exclusion criteria are expressed as structures of the probable learning contributors who fit the inclusion criteria but present other appearances that could prevent the achievement of the study or upsurge the threat for an negative result. (Patino & Ferreira 2018.)

Therefore, for this report, collected data were reviewed first by the title of the research paper. Suitable articles were collected based on the pre-recognized research question and inclusion criterion. The inclusion criteria are sciencetic journals, full-text published articles, that have been published between 2017–2022 mostly, articles published in English language and articles that are related to the reserch studies. Exclusion criteria are non reviewed scientific journals, scientific journals only with abstract, publication before 2017, articles published in other languages, duplicate copies.

Regarding inclusion and exclusion criteria, below is a table with the main key words that the researcher applied for finding of the articles. Table 1 displays databases, search words, year, results and chosen articles for the study.

Table 1. Explored Databases

Databases	Search words	Search limitation	Results	Title	Select articles
EBSCO	Online learning AND nursing students AND well- being	2019-2022	17		4
Pubmed	Supports for nursing students during online learning	2019-2022	14		3
Ebook Central	Covid 19	2019-2022	175		2

6.3 Analysing methods

“Data synthesis is a method of increasing knowledge related to results, conclusion, and dialogue of previous published articles as a mean to meet the research question in Literature review” (Kiteley and Stogdom, 2014). Therefore, nine full-text articles were reviewed and studied and measured suspiciously to assemble to be more trustworthy material. The nominated resources were examined by using data reduction and data comparability, then forming a summary and approval of data from the listed materials. (Resources)

Inductive content analysis was used to analyze the articles to provide answers to the research questions. Firstly, the researcher read selected articles repeatedly to gain knowledge and to understand the content of the articles. To get the information that needed, the researcher mainly focused on reading the abstract, the results or main findings of previous research, and the discussion part. Afterward, the researcher gathered all the data and placed it in a table on the computer. Then, using the method of content analysis, the data from the chosen articles which specifically responded to the research questions was transformed to another table (Appendix 1). Then, the researcher placed the main findings of the research questions under the title of original expression. Original expressions were then formed into reduced expression. After that, the researcher created sub-categories to finally reach the main category.

The purpose of using inductive content analysis was to create a fresh and clear explanation considering all this research by choosing the most relevant and meaningful method. Thus, themes were created by classifying retrieved data into the main category.

Table 2 below displays the literature review.

Table 2. Data matrix of empirical research

Author/s year and country	Purpose of the study	Sample, methods	Main finding
Oducado, R.M.F. & Estoque, H.V. 2021 Philippines	To determine the undergraduate nursing student's stress, satisfaction, and academic performance during online learning.	Second-year undergraduate nursing students (n=108) of one nursing school in the Cross-sectional and descriptive-correlational study that used a survey questionnaire.	Stress led to negative impacts to the undergraduate nursing students' satisfaction and academic performance. For the suggests, the continuously measures should be performed to reduce stress and improve the online teaching-learning processes during the COVID-19 outbreak.
Mulyadi, M., Tonapa, S. I, Lin, W. T. & Lee, B.O. 2021 Indonesia	To identify the prevalence of mental health problems and sleep disturbances among nursing students during the COVID-19 pandemic.	Seventeen studies Systematic review, meta-analysis.	The findings showed that strategies are necessary to manage nursing students' teaching and learning during the COVID-19 pandemic or similar future situations. The results suggest that

			<p>preparing modified distance learning might reduce the prevalence of health problems related to the educational process. Moreover, providing regular mental health assessments or online mental health services to students may develop their mental health and increase their well-being. Nursing education policies concerning clinical practice continue to be framed to ensure the achievement of capabilities to support future careers while cogitating the mental readiness and safety of students.</p>
<p>Sakai, M., Nakanishi, M., Yu, Z. Takagi, G., Wakashima, K. & Yoshi, H. 2022 Japan</p>	<p>The study aimed to investigate the level of anxiety and depression among Japanese nursing students, according to</p>	<p>281 nursing students (n=281) Cross-sectional survey with questionnaire.</p>	<p>More than 30% of nursing students were prevalent with anxiety and depression several months after the onset of the COVID-19 pandemic, even though the</p>

	their perceived vulnerability to COVID-19.		prevalence of anxiety was lower than for other college students. The results indicate that long-term strategies are needed to report mental health problems in nursing students, while they adjust to the current online learning set- up, until the resurrecting of schools. Remote delivery of psychosocial involvements for college students, such as peer support and stress management programs, should be developed for nursing students.
Salmani, N., Gagheri, I. & Dadgari, A. 2022 Indian	This study aimed to describe Iranian nursing students' experiences of e-learning during the COVID-19 pandemic.	Nursing students from the 4th, 6th and 8th semesters participated in this study (N=10) Qualitative descriptive study, analyzed through thematic	The finding shown that e-learning has been presented as a new method for the current research participants and despite the noticed benefits, these students believed that e- learning could complement face education but not replace it.

		analysis. Semi-structured interview.	
Wallance, S. Schuler, M. S., Kaulbak, M., Hunt, K. & Baker, M. 2021 USA	To explore nursing students' experiences of the transition to remote learning during the Spring 2020 semester in one of the first states impacted by this transition.	Senior nursing students (n = 10) A descriptive phenomenological design, interviewed.	To simplify student engagement and successful transition to remote learning, faculty will need to foster online community building, become adept in teaching in an online environment, schedule respite from technology, and promote self-care to cultivate resilience.
Fitzgerald, A. & Konrad, S. 2020 USA	To explore anxiety and stress experienced by first-semester nursing students and identify sources of support during a transition from a face-to-face to an online learning platform during the first months of the COVID-19 pandemic.	Nursing students (n = 50) Descriptive study used online survey.	To decrease anxiety and stress, the faculty should substitute a structured learning environment; accept by the course schedule; communicate changes or updates in a timely fashion; adapt assignments to fit the learning environment; develop campus,

			local, state, and national resources; practice self-care; and extend grace.
Ballad, C. A. C., Labrague, L. J., Cayanban, A. R. R. & Balushi. S. M. A 2021 Oman	To explored self-directed learning (SDL) readiness among nursing students in Oman, their learning styles (LS), and the association of demographic variables and LS with SDL.	The study's inclusion criteria required each eligible student to (1) be currently registered in a nursing institution, (2) be a full-time student, and (3) have consented to participate in the study. Nursing students (N=350, n= 236). Used online questionnaire, descriptive cross-sectional.	The Omani nursing students in this study exhibited a low level of SDL readiness; moreover, most of them preferred the perceptive, imaginative, and competitive LS. Students who displayed a perceptive, solitary, competitive, or imaginative LS tended to have higher SDL. In contrast, students with an analytical LS revealed lower SDL. Students who were on academic probation status demonstrated lower SDL readiness.
Aslan, H. & Pekince, H. 2020	This study was conducted to evaluate nursing student's views	Nursing students (N=630, n=622)	The average score on the PSS was 31.69 ± 6.91 , indicating that

Turkey	on the COVID-19 pandemic and their perceived stress levels.	Cross-sectional study. A random sampling method, surveys, and online questionnaire.	the students had a moderate level of stress. Significant differences in PSS score were found in terms of age and sex ($P < .001$ and $P < .001$, respectively)
Thapa, P. Bhandari, S. L. & Pathak, S. 2021 Nepal	This study was conducted to assess the attitude of nursing students towards e-learning at a time when it was the only available option to continue learning.	N= 482, n=470 students participated in the study. Descriptive, cross-sectional study design, questionnaire was used.	The majority of the students had internet problems and technological issues. If e-learning can be made userfriendly with reduced technical barriers supplemented with programs that can enhance practical learning abilities, e-learning can be the vital alternative teaching method and learning in the nursing field.

7 RESULTS

The author had selected nine articles to answer the research questions. In facts, the author had created reductive table by realizing the content of the data and then classified into sub-categories. From the different sub-categories, main category was generated.

7.1 Characteristics of included studies

The nine studies that met the inclusion criteria were published between 2020-2022. Those were from all different countries which included Philippine (Oducado & Estoque 2021), Indonesia (Mulyadi et al. 2021), Japan (Sakai et al. 2022), and Indian (Salmani et al. 2022). Two were from USA (Wallance et al. 2021; Fitzgerald & Knorad 2020), Oman (Ballad et al. 2021), Turkey (Aslan & Penkince 2020) and Nepal (Thapa et al. 2021). Three studies used descriptive cross-sectional design (Ballad et al. 2021; Oducado & Estoque 2021; Thapa et al. 2021), one study used systematic review (Mulyadi et al. 2021), two studies used cross-sectional design (Aslan & Penkince 2020; Sakai et al. 2022), one study used qualitative descriptive design (Salmani et al. 2022), one study used descriptive phenomenological design (Wallance et al. 2021), and one study used descriptive design (Fitzgerald et al. 2020). One study used a survey questionnaire, two studies used a questionnaire, one study used meta-analysis, two study used an interview, one study used an online survey, two studies used an online questionnaire to analyse the results.

7.2 Online learning effected on the well-being of nursing students during COVID-19 pandemic

There are five sub-categories. These are **negative emotional reaction, deteriorated academic performance, absence of face-to-face relationship with peers and professors, social isolation, inability to plan one's own studies.**

According to the results, nursing students considered online learning as very stressful, and they believed stress is a major issue for them (Oducado & Estoque 2021). Apart from that, ineffective teaching-learning relationship of online learning created frustration, depression and reduced motivation that led nursing students to have lower satisfaction with their academic performance (Salmani et al. 2022). By all these negative feelings, nursing students had reached a **negative emotional reaction**.

While half of the nursing students agree with online learning and had fair academic performance, the research reported that more than half of the nursing students had poor academic performance (Oducado & Estoque 2021). The research findings revealed that nursing students were very stressed about learning online and these stress levels led them into **deteriorated academic performance**.

The research also showed that the consequences of learning online included decreased bilateral interaction with professors, as well as with peers (Salmani et al. 2022). These negative facts brought the nursing students to feelings of loss and loneliness due to **absence of face-to-face relationship** with both professors and peers or inability to ask questions from peers or professors (Wallace et al. 2021). Nursing students claimed that they missed seeing other students from their group regularly, working together on projects and sharing notes (Wallace et al. 2021).

Online learning had another possible negative impact on nursing students as well. Nursing students were not able to meet with peers to work together on projects and share notes after transition to online learning (Wallace et al. 2021). According to the research findings (Wallace et al. 2021), most students mentioned feeling isolated and lonely, as well as missing their study group which cause them to feel like being in **social isolation**.

With sudden transition from face-to-face to online learning platform, nursing students had **inability to plan their own studies**. As they were not prepared and

ready for the new online learning platform designs, the transition to all online learning instruction had impact on nursing students' ability to plan their own studies (Fitzgerald & Konrad 2020.)

7.3 Support for nursing students in online learning during COVID-19 pandemic

There are five sub-categories, namely **developing and providing a new stable strategy for pedagogy, adjusting the learning style as needed, strategies for peers' engagement support, interventions for nursing students' mental well-being, instructors' support for academic performance.**

To decrease the feelings of stress and anxiety related academic responsibilities for the nursing students, the faculties and academic instructors **providing a new stable strategy for pedagogy** (Fitzgerald & Konard 2020). They worked on incorporating new knowledge and designs for the pandemic-ready nursing courses (Wallance et al. 2021). Also, they created beneficial strategies for knowledge sharing (Wallance et al. 2021). Moreover, they provided the course for professional technical skill development, as well as encouraging a collaborative environment among students and faculty (Wallance et al. 2021.)

Although nursing students are required to do the clinical practice to gain the experience, faculties designed the **replacement of clinical experience with simulations** (Mulyadi et al. 2021). Additionally, they offered the short courses on learning skills and academics to help nursing students cope, adapt and recover as quickly as possible in times of crisis (Mulyadi et al. 2021.)

Faculties also developed creative **strategies for peers' engagement support**, like student-to-student engagement programs or developing discussion boards only for students (Wallance et al. 2021). Furthermore, faculties also developed additional strategies of think-pair-share where students can share their work with a partner to identify commonalities and differences (Wallance et al. 2021.)

Faculties helped to mitigate students' feeling of anxiety. They developed and created the strategies that reduced students' stress (Oducado & Estoque 2021). They carried out the **interventions for nursing students' mental well-being to give** psychological support such as suggesting activities that promoted well-being, decreased stress and anxiety (Sakai et al. 2022). These activities included journaling, expressive writing, mindfulness practice or meditation, and expressing gratitude (Wallance et al. 2021.)

Among all the support, **instructors' support for academic performance** was also very essential. Instructors adapted the new expectations for students' grades, and they extended more time for the students if they couldn't submit the assignments on time (Fitzgerald & Konard 2020). Also, instructors always reminded the students for upcoming classes or other important social activities through phone sms, email, or phone call (Fitzgerald & Konard 2020). Students described that they felt having support from the instructors. Academic advisors also played a major role in supporting students' academic performance (Fitzgerald & Konard 2020.)

8 ETHICS AND RELIABILITY OF THE THESIS

In all the scientific writing, it is good when the authors follow the right regulation guidelines that are provided by the school and engage in the use of suitable methods which include correct use of information, confidentiality, bias, harm in accordance with research ethics (Kumar 2014.)

Ethics in the thesis means that the researcher has followed the ethics principles throughout the work phase. Ethics have been followed in the research, when the analysis methods and methods used by the researcher meet the criterion that they could work for any research as a guideline. Research must try to bring good things as the object of the research to those present and does not endanger the lives of the people involved, especially when the research examines a sensitive topic. (Kumar 2014.)

8.1 Ethical consideration

The ethical thesis is concerned with the rights, duties, and responsibilities of the thesis process from the perspective of research ethics (Arene fi). Moreover, researchers are completely mindful regarding the research and the outcome of the research should contain no adverse effects of the research. Also, no damage shall be made to any contributors of the research progression, as well as confidentiality must be kept in mind during the whole process. (Kumar 2014.)

8.2 Reliability

Reliability is concerned with the acceptability of the researcher's planning, processing, and reporting the research to create the results reliable. However, the author tries to accomplish the study as simple as possible to understand the finding clearly. All ethical consideration will reflect during the data investigation process. (Reid 2009.) The author will use Inductive way to analyse the collected data even though there is another way called deductive analysis method.

Inductive analysis methods consist of three main stages: Preparation, organization, and reporting in finding. During preparation at the first stage, the author will collect the relevant data for to the research. In the organization or second stage, the author will organize the data to form categories and ideas. And in the final stage or reporting, author will report the results by defining the content of the categories that explain the research questions' themes. (Reid 2009.)

Reliability in the thesis means that the researcher is able to convince the reader that justified and correct methods have been used in the research methods for clarifying the research question and carrying out the research. In order to influence the reader to the reliability of the research, the researcher must record each step of the research honestly and so that the reader can use step by step to repeat the study (Reid 2009). The author described the methods of clarifying the research questions by showing inductive contents analysis table and estimate of the research questions. All work have done to complete this research by the author a lone.

In order to get approval from the research community, the research shall follow the principles that are endorsed by the research community. These include honesty, perfectionism, and precision in conducting research, as well as in recording, presenting and evaluation of the research results (Finnish Advisory Board On Research Integrity 2012, 30). By the support of Information Specialist of Xamk's library, the author gathered the information and accessed reliable sources that published online and used only the report that had exact answers to the research questions. The author always kept in touch with guides, then updated and uploaded on thesis management and supervision software program to record all the work had had been done. The author also made presentation which included the thesis plan and a final presentation after all work have been completed. From author then carried out the evaluation of the results, and the thesis guide approved the report.

When publishing the research results, the results must be in an open connected and accountable way that is essential to the distribution of scientific knowledge. The methods applied for data acquisition must go through evaluation, imitate to scientific standards and ethically supportable (Finnish Advisory Board On Research Integrity 2012, 30). The reliability of this thesis is supported by carefully selected versatile sources. The author has taken into account the original sources and used them whenever possible. The process of the thesis has been described as precisely as possible so that the reader can repeat the research.

In achieving the work, the researcher respected the work of previous researchers, citing their publication appropriately and giving them their achievements credits which they deserve and carrying out the researchers' own research in publishing its results (Finnish Advisory Board on Research Integrity 2012, 30.). The author always mentioned the name of the previous researchers in the relevant paragraph that took their research into account. The author made

sure to give the credits to the previous researchers by always citing their publication appropriately.

In planning and conducting the research, the researcher has obeyed the standards set for sharing scientific knowledge, as well as in reporting the research results and in recording the data obtained during the research (Finnish Advisory Board on Research Integrity 2012, 30). The author was given proper lecturing on planning the research and signed on the agreement paper before going any further. The author then had to get approval from the research community to start this research. Finally, the author proceeded step by step to complete the research without violating any rules or regulations for the research.

9 DISCUSSION AND CONCLUSION

In summary, the author spotlighted and described the well-being of nursing students during online learning and the support that nursing students received for online learning in this COVID-19 pandemic. The study showed that nursing students' feeling of social isolation and stress is a major issue for online learning. In addition, stress negatively led to emotional reaction and dissatisfaction that impacted on academic performance. Similarly, in one study revealed that nursing students considered online learning as very stressful and even believed that stress is major issues that led them to have poor academic performance (Oducado & Estoque 2021). Another studied result also cited that nursing students feeling loss and loneliness because of absence of face-to-face relationship (Wallance et al. 2021). Likely, in another study also said that students experienced ineffective teaching-learning relationship in online learning that created confusion, frustration, depression, and reduced motivation (Salmani et al. 2022). In another previous researched also stated that the transition of online education due to COVID-19 crisis has led to significantly increased stress for all the students (Lemay et al.2021). The undergraduate nursing stuetns in Egypt (Eiab & Elgahsh 2020), Nepal (Koirala et al. 2020) also reported negative attitudes and perceptions regard to online learning. However, all the faculties and instructors tried to put effort as much as possible to support the well-being of

nursing students by creating and developing many courses and programs. These programs include strategies for pedagogy and peers' engagement support. Similarly, on one other researched, faculties recognized the students' well-being matter and tried to provide advance teaching-learning environment such as instructional, peer and technical support (Wallance et al. 2021). In another researched also revealed that faculties and instructors developed the strategy that benefit for the students' well-being (Oducado & Estoque 2021). As well as intervention for stress management and remote delivery of peer support program had created by the faculties and instructors (Sakai et al, 2022.)

Conclusions derived from the main finding

1. Negative emotional reaction as nursing students considered online learning stressful.
2. Deteriorated academic performance as stress level led to lower satisfaction and poor academic performance.
3. Social isolation as absence of face-to-face communication.
4. Faculties Developing and providing the new stable strategies for pedagogy and peers' engagement support.
5. Interventions for nursing students' mental well-being such as peer support and stress management programs.

The study suggests that undeniable measurement of stress level for the nursing students should be continuously performed to reduce stress. Along with that faculties should keep advancing the online teaching-learning process to improve the quality of online learning during the COVID-19 pandemic outbreak for the future preparation.

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Example of Inductive content analysis: Question-1

Original expression	Reduced expression	Sub-category	Main Category
The results reveal that the undergraduate nursing students considered having online learning during the COVID-19 outbreak to be stressful (44.4%) and very stressful (47.2%).	Considered online learning stressful. (Oducado & Estoque 2021)	“Negative emotional reaction”	Online learning affected on the well-being of nursing students during COVID-19 pandemic
Stress had a significant and negative inverse relationship with the students’ satisfaction and academic performance toward online learning. The research findings indicated that a higher stress level led to lower satisfaction and poorer academic performance with reference to online learning.	Stress level led to lower satisfaction Stress level led to poor academic performance. (Oducado & Estoque 2021)	“Deteriorated academic performance”	

<p>Although half of the students in this study had acceptable or fair academic performance, it cannot be neglected that more than one-third of the students also reported poor academic performance. It is also remarkable that the pandemic has significantly affected the students' performance at school.</p>	<p>Poor academic performance (Oducado & Ryan 2021)</p>	<p>“Absence of face-to-face relationship with peers and professors”</p>	
<p>Most (85.2%) undergraduate nursing agreed that it was more difficult to focus during online learning when compared to on-site or face-to-face learning.</p>	<p>Difficult to focus (Oducado & Ryan 2021)</p>	<p>“Social isolation”</p>	
<p>Stress was a major issue in online learning among the undergraduate nursing students during the COVID-19 pandemic.</p>	<p>Stress was major issue in online learning (Oducado & Ryan 2021)</p>		

<p>A major source of dissatisfaction with e-learning was the decrease in opportunity for bilateral interaction with professors. Absence of face-to-face communication and lack of feedback from professors inhibited the formation of an effective teaching-learning relationship, which can create frustration, depression and reduced motivation in students</p>	<p>Decreased bilateral interaction with professors.</p> <p>Ineffective teaching-learning relationship created frustration, depression, and reduced motivation (Salmani et al. 2022)</p>	<p>“Inability to plan own studies”</p>	
<p>The student experiences with the unplanned E-learning. Students first experienced confusion; over time normalization of E-learning occurred.</p>	<p>Confused with unplanned E-learning. (Salmani et al. 2022)</p>		
<p>During traditional face-to-face instruction, nursing students often see one another regularly, form study groups, work together on projects, and share</p>	<p>Feeling loss and loneliness because of absence of face-to-face relationship. (Wallace et al. 2021)</p>		

<p>notes. Students will also often stay after class to meet with a professor or drop by for office hours. The sudden transition to remote learning resulted in an unanticipated absence of these connections leading to feelings of loss and loneliness.</p>			
<p>Students described the negative impact of remote learning on peer-to-peer relationships. A majority of students described feeling isolated, lonely, missing study groups, and an inability to ask questions to peers .</p>	<p>Negative impact on peer-to-peer relationship Isolated lonely missing study groups In inability to ask questions to peers. (Wallace, Kaulback, Baker Schuler, Hunt 2021)</p>		
<p>The pandemic and the transition to all-online instruction may have a potentially negative impact on these students' ability to move forward in the program.</p>	<p>Inability to move forward in the program. (Fitzgerald & Konrad 2020)</p>		

<p>The average score on the PSS was 31.69 ± 6.91, indication that the students had a moderate level of stress.</p>	<p>Moderate level of stress (Aslan & Pekince, 2020)</p>		
<p>About thirty percent of the students felt anxious about their ability to use e-learning effectively.</p>	<p>Students felt anxious about their ability to use e-learning effectively. (Thapa et al. 2021)</p>		