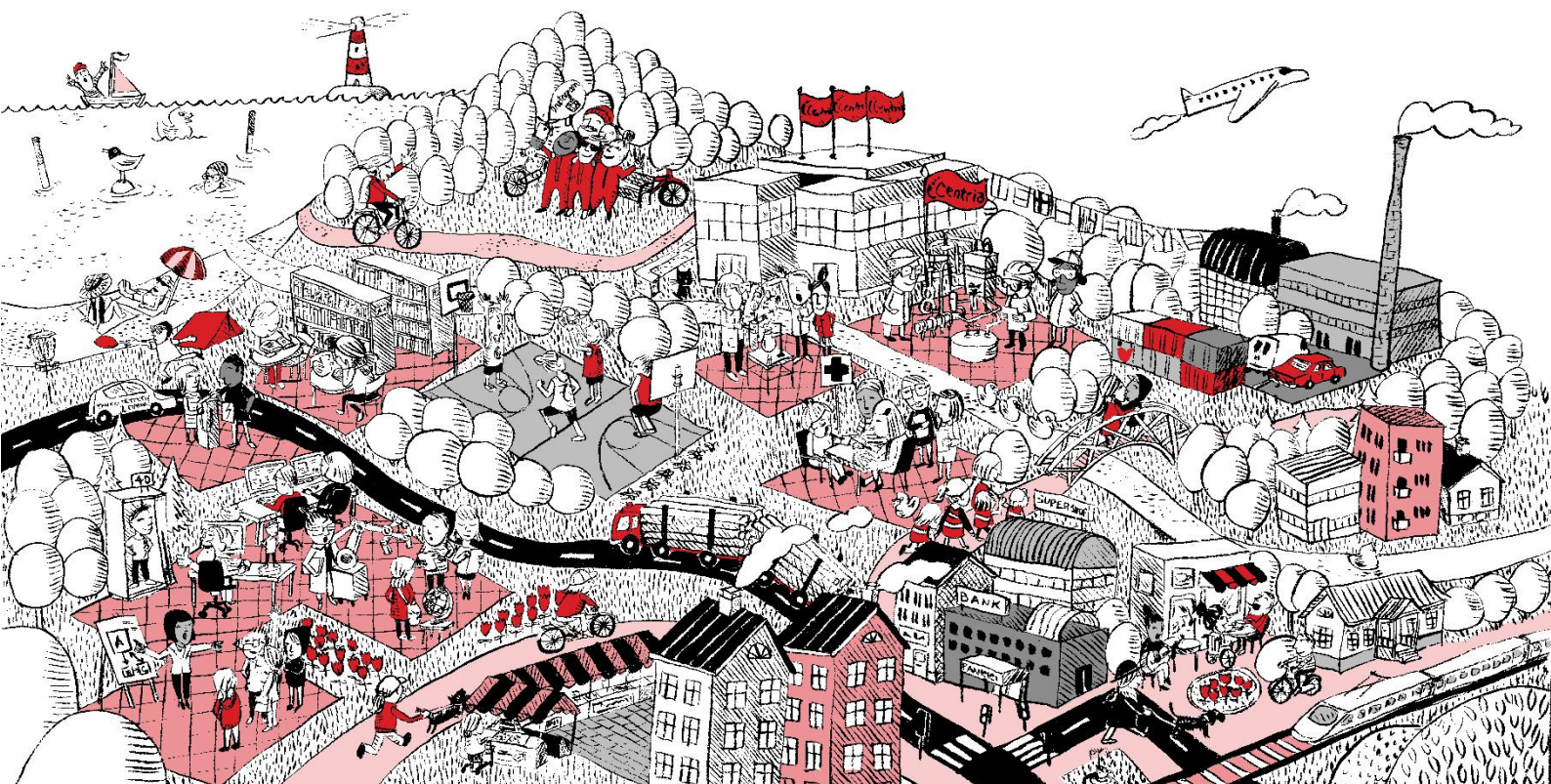


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**COMMON EFFECTS AND STRATEGIES ABOUT UNIVERSITY  
STUDENTS COPING WITH COVID-19 PANDEMIC**

**Thesis**  
**CENTRIA UNIVERSITY OF APPLIED SCIENCES**  
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**ABSTRACT**

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<b>Degree programme</b> Bachelor of Health Care, Nursing		
<b>Name of thesis</b> COMMON EFFECTS AND STRATEGIES ABOUT UNIVERSITY STUDENTS COPING WITH COVID-19 PANDEMIC		
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<b>Instructor representing commissioning institution</b> Hanna-Mari Pesonen		
<p>The COVID-19 pandemic has affected the entire world and students in different ways. During a pandemic, the stress levels of university students increase significantly. Therefore, they need to have some coping strategies in order to reduce the impact of the COVID-19 pandemic on students.</p> <p>The purpose of the thesis is to determine common effects and strategies about university students coping with COVID-19 pandemic. The aim is also to provide some solutions that can help university students to coping strategies and teachers are able to understand the impact of pandemic on university students and help them to cope positively.</p> <p>This study was performed in the form of a literature review. Data was collected from the databases provided by Centria University of Applied Sciences: CINAHL, PubMed, Sage Journals and Science Direct. A total of five articles have been selected based on the inclusion and exclusion criteria. Inductive content analysis was used in analysing the data by creating categories, abstractions and by explaining the results.</p> <p>The results of the study show that the causes of stress in university students dealing with COVID-19 can be broadly divided into external and internal factors. Moreover, the study further indicates some solutions to help university students to be able to cope with the COVID-19 pandemic. The study summarises five different coping strategies for university students during the COVID-19 epidemic, which include social support, acceptance, spiritual disengagement, humanitarianism and self-care.</p> <p>The authors suggest that future research could be more focused on the university teachers educating students about their academic, social and emotional needs as a whole, and on the level of student resilience and satisfaction.</p>		

<p><b>Key words</b> Coping, COVID-19, Mental health, Stress, University student</p>
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## 1 INTRODUCTION

The World Health Organization first became aware of an infectious disease caused by a new coronavirus on 31 December 2019, known as the COVID-19 coronavirus disease. In January 2020, the WHO declared the COVID-19 outbreak a global public health emergency. By 2021, COVID-19 pandemic is still spreading in most parts of the world. Globally, as of June 2021, 170 million confirmed cases of COVID-19 have been reported to the World Health Organization, including 3.6 million deaths. (World Health Organization 2020.)

In January 2020, the Chinese Centre for Disease Control and Prevention reported the identification of a novel coronavirus. On 29 January 2020, Finland confirmed its first case of coronavirus disease. In March 2020, Finnish Institute for Health and Welfare confirmed four new cases of a novel coronavirus, bringing the total number of infections to 23. The Finnish government, in cooperation with the President of Finland, declared a state of emergency in the country, implementing a list of measures aimed at slowing the spread of the virus and protecting at-risk populations. These measures included the closure of schools and most government-run public facilities, restrictions on public gatherings, and the closure of the country's borders. (Finnish Government 2020.)

The COVID-19 pandemic has had a major impact on everyone's lives. Public health actions such as minimizing social contact are necessary to reduce the spread of COVID-19, but they can make people feel isolated and increase stress and anxiety. The closures have a serious impact on the mental health of students, leading to psychological problems, including depression and stress. (Cao, Fang, Hou, Han, Xu, Dong & Zheng 2020.) In addition, changes in daily activities, including the lack of outdoor activities, restless sleeping patterns and social distancing, have affected students' mental health. (Chaturvedi, Vishwakarma & Singh 2021.) The COVID-19 pandemic has affected the entire world and students in different ways. Studies have found that students' stress levels increase during a pandemic. Therefore, students should be given the ability to cope with stress in the event of a pandemic. (Aslan & Pekince 2020.)

The purpose of the thesis was to determine common effects and strategies about university students coping with the COVID-19 pandemic. The aim was also to provide some solutions that can help university students to find strategies, that teachers would be able to understand the impact of pandemic on university students and help them to cope positively.

This thesis will be carried out as a literature research. In order to collect the data for the COVID-19 pandemic, there are numerous sources used in this study, which are from the databases provided by Centria University of Applied Sciences: CINAHL, PubMed, Sage Journals and Science Direct. Studies chosen for this thesis focused on common impacts and strategies about university students coping with COVID-19 pandemic.

## **2 THEORETICAL FRAMEWORK**

This chapter discusses key concepts and terminology relevant to understanding what is discussed in this thesis. It covers stress management, coping strategies, the health and wellbeing of university students, the mental health of university students and the impact of COVID-19 on learning and teaching.

### **2.1 Stress management and coping strategies**

Stress as a response model was originally proposed by Hans Selye and captured in his general adaptation syndrome model. The model describes stress as a dependent variable and it contains three concepts. Firstly, stress is a defence mechanism. Secondly, it is divided into three stages: alertness, resistance and exhaustion. Finally, if the stress lasts long or is severe enough, it may lead to adjustment disorders or even death. Different responses to stress can lead to positive or negative outcomes. In this way, stress is categorised as either normal stress or as disorder. (Walinga 2010.)

The concept of coping is very important in psychology. It has been divided into two different research literatures: the tradition of animal experimentation and psychoanalytic ego psychology. In the ego psychology model, coping is defined as the use of realistic and flexible thoughts and behaviours to solve problems and help reduce stress. The difference between them lies in perceiving and thinking about the relationship between people and their environment. The psychoanalytic self-psychology model can deal with the relationship between people and the environment. Psychoanalytic self-psychology model dominates coping theory and measurement. Coping styles differ primarily in the degree to which they are expressed, usually in broad, general, encompassing ways that are relevant to particular types of people. (Lazarus & Folkman 1984.)

Psychological resilience refers to someone's ability to recover from negative emotional experiences and be flexible enough to adapt to changing experiences of stress. Psychological resilience is the ability to cope and adapt effectively in the face of loss, hardship or adversity. This definition expresses the psychological mindset associated with a variety of behavioural and psychological outcomes. Research has shown that highly resilient individuals actively cultivate positive emotions through humour, relaxation techniques and optimistic thinking, as well as by strategically stimulating positive

emotions. Positive emotions can have a positive meaning and their discovery represents a broadening of one's mindset when coping, which subsequently helps to build psychological resources such as resilience. According to research evidence, there may be differences in each individual's ability to express their emotions and to effectively control their emotional life. Some people can manage their emotions more effectively in stressful situations. People with high resilience are more able to learn from life's frustrations and use this knowledge to cope more effectively than those with low resilience. (Tugade & Fredrickson, 2004.)

Stress is the body's response to changes in life. The goal of stress management should not be to eliminate all stress, but to manage the remaining stress by eliminating unnecessary stress and managing it effectively. Many people will experience a number of common causes of stress, but everyone is different. A study found that nursing students experience moderate to severe stress in clinical settings. Stress can cause changes in health status, poor academic performance, student dropout and quality of patient care. (Rafati, Nouhi, Sabzevari & Dehghan 2017.) The individual's ability to cope with stress is more important than the stress itself in strategies of adapting to stress. Appropriate coping methods can reduce stress-induced harm. (Kar, Kar & Kar 2021.)

## **2.2 The health and well-being of university students in Finland**

Students may encounter many problems while studying and living in Finland. Fortunately, schools and Finnish government agencies provide students with a variety of social services. Because most students are greatly affected by mental health, universities should give full attention to the mental health needs of their students. Given that COVID-19 can cause ongoing psychological distress, the university may also consider helping students to maintain a healthy mindset rather than avoiding stress. Finnish universities generally provide guidance services, international services, skills services, learning services, library and information services, sports services, student healthcare services, student pastor services, student services and psychologist services to ensure the well-being of students. Some universities have programs that promote mental health, such as virtual group exercise, positive thinking sessions, accountability partnerships, exercise challenges, and telemedicine. These group programmes help students to reduce anxiety and reduce student-reported isolation. Moreover, digital interventions target students with clinical levels of anxiety, depression and high risk of self-harm or suicide. (Browning, Larson, Sharaievska, Rigolon, McAnirlin, Mullenbach, Cloutier, Vu, Thomsen, Reigner, Metcalf, D'Antonio, Helbich, Bratman & Alvarez 2021.)

From 2021 onwards, Students in universities of applied sciences and universities who are entitled to use the services of the Finnish Student Health Service must pay a healthcare fee to Kela. The FSHS provides health and medical services for students, promotes their health and learning abilities and contributes to the well-being of the learning environment and the student community. Health services include health check-ups, preventive oral health measures, psychological examinations, non-emergency treatment, nutritional therapy, health communication and physiotherapy, among others. The Finnish Student Health Service conducted the National Finnish Student Health Survey in 2016, targeting Finnish students under the age of 35. The aim was to investigate the physical, mental and social health of students and to help them improve their health. According to the results, 72% of students suffer from chronic, long-term or frequent illnesses. Based on the survey, 10.2% of students suffered from depression and 7.4% from anxiety syndromes. In the mental health screening, 33% of all students suffered from high levels of stress. Furthermore, the most common cause of stress is to show difficulty in controlling one's learning in public. (Finnish Student Health Service 2021).

### **2.3 The mental health of university students**

The COVID-19 pandemic has put unprecedented pressure on education systems around the world, especially on universities and their students. In 2020, many universities began to adopt online teaching. The pandemic has also brought unprecedented pressure to college students. Compared with the general population, they are increasingly regarded as a disadvantaged group, with higher levels of anxiety, depression, drug abuse and eating disorders. (Fruehwirth, Biswas & Perreira 2021.)

According to a global study of student experiences from 62 countries, students reported concerns about their academic and professional futures, as well as feelings of boredom, worry and sadness. On average, women were more worried than men that their careers and academic abilities would be affected. The study found that younger students may be more worried about their future education and ability to pay for university than older students. Younger students may cause anxiety and poor mental health. (Browning et al., 2021.)

A growing number of universities around the world are coping with an increase in mental disorders and, in many cases, the demand for campus services is outstripping available resources. A study showed that major depressive disorder was the most common psychiatric disorder among university



students in eight countries - Australia, Belgium, Germany, Mexico, Northern Ireland, South Africa, Spain, and the United States - followed by generalised anxiety disorder. (Auerbach, Mortier, Bruffaerts, Alonso, Benjet, Cuijpers, Demyttenaere, Ebert, Green, Hasking, Murray, Nock, Pinder-Amaker, Sampson, Stein, Vilagut, Zaslavsky & Kessler 2018.)

## **2.4 The impact of COVID-19 on teaching and learning**

Because of COVID-19, most countries have decided to temporarily close educational institutions. More and more universities provide distance learning instead of face-to-face teaching, and online courses have become the main way of teaching in universities. COVID-19 has a negative impact on students' cognitive and non-cognitive skills. In addition to its short-term effects, it may also have important long-term effects. Short-term effects include the learner's inability to concentrate, reduced learning efficiency and so on. Long-term effects include students spending less time on learning, learning stress, changes in the way students interact with each other and a lack of motivation to learn. (Di Pietro, Biagi, Costa, Karpinski & Mazza 2020.)

The results show that, compared to learners' learning efficiency and enthusiasm, their learning attitude is most negatively affected. The learning efficiency of learners depends to a large extent on their personality, self-motivation and self-discipline. Learners need to manage their own time, such as online learning and completing homework on time. The flexibility and humanization of online learning is an advantage for some learners. Also, a good mental state can contribute to a better learner motivation and perseverance. Exercise, good sleep, regular eating habits and social activities are very important in order to improve mental health. Because they can keep university students in a good and stable frame of mind. (Nguyen & Huynh 2020.)

There are certain challenges in the implementation of online learning methods. Online learning requires learners and lecturers to be more proactive and more spontaneous to explore and adapt to the new learning environment. At the same time, learners should follow more disciplined learning routines in order to increase productivity, concentration and effectiveness of the e-learning process. (Aguilera-Hermida 2020.)

### **3 PURPOSE, OBJECTIVES AND RESEARCH QUESTIONS**

The purpose of the thesis is to describe the stress factors COVID-19 has caused to students and students' coping with the stress. The aim is to produce information about the impact of COVID-19 pandemic for university students' mental health and coping strategies. The aim is also to provide some solutions that can help university students to coping strategies and teachers are able to understand the impact of pandemic on university students and help them to cope positively.

The research questions of this thesis are as follows:

What kind of stress factors does the COVID-19 epidemic bring to students?

How are university students coping with the stress caused by the COVID-19 pandemic?

## **4 METHODOLOGY**

This chapter explains how information and data was gathered in order to find answers of the study questions.

### **4.1 Literature review**

The research methodology was determined by the purpose of the study. This study is a literature review of both stress factors caused by the COVID-19 pandemic, as well as how university students cope with the stress. The method was chosen to provide a wide perspective and scientific evidence-based method.

Literature reviews can be purposefully and critically synthesis under specific topics. They can identify what is known or unknown in the subject area, identify areas that are controversial or worthy of debate and help raising questions that require further study. There are many benefits to producing meaningful work. A literature review can be a valuable reference for a starting researcher or author, encouraging readers to research topics in their area of interest and consider submitting their own literature review for reference. (Bolderston 2008.)

Literature reviews are a very common form of review in nursing, midwifery, and other fields. Nowadays it is also becoming more and more important in health and social care. Thus, this thesis uses a literature review based on evidence-based practice. Searching and reviewing the literature selected for a specific topic to get an overall picture and then continuing on from that basis will make this study more valuable. (Aveyard 2010).

### **4.2 Data collection**

To collect data on the stress situation and coping methods of university students during the epidemic, many sources are used in this study, which are from databases provided by Centria University of Applied Sciences: CINAHL, PubMed, Sage Journals, and Science Direct. For the used databases, the first step was to conduct a general article search for data by using keywords such as "student", "COVID", "stress", and "coping". There are 475 pieces of research articles from Science Direct's

database, 813 pieces of research articles from Sage Journals' database, 21 pieces of research articles from CINAHL, and 96 pieces of research articles from PubMed.

The second step, more specified keywords and phrases “university students”, “mental health” were added to narrow down the search. The data provides information on the mental health effect, stress factors, and how university students cope with the COVID-19. Therefore, the articles that met the above criteria were filtered down to Science Direct with 23 research articles, Sage Journals with 6 research articles, PubMed with 51 research articles, and CINAHL with 21 research articles.

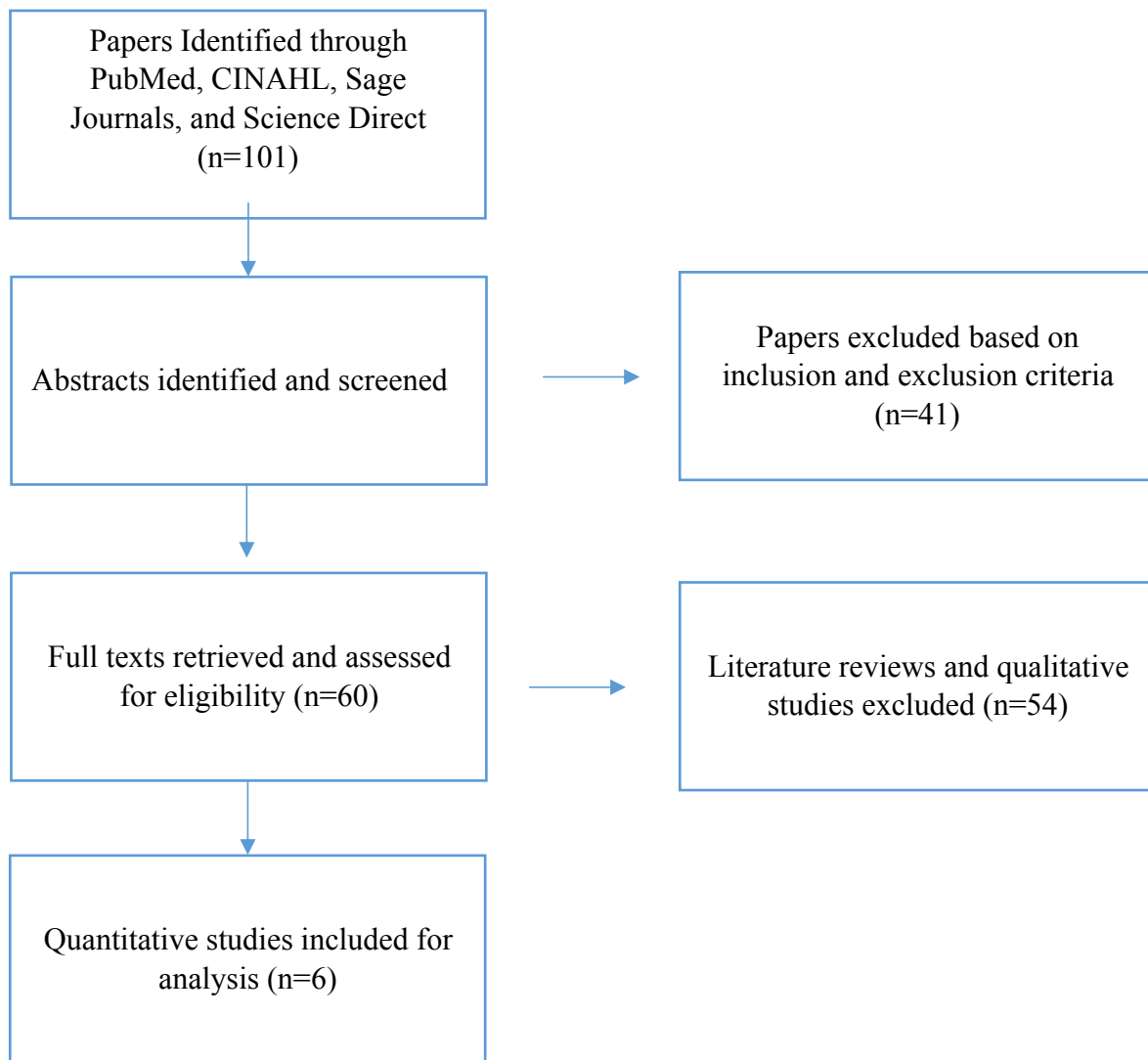
Then, to further narrow the range, the final research articles were selected based on the requirements in TABLE 1. These selected articles have good and relevant content to the topic, and also considering the type of research articles, quantitative studies were selected because they have a broader range of information among a large number of cases. Some of the articles were not only aimed at university students, but also involved people working and doing practice. These criteria helped to narrow to the final 6 research articles. The selected articles are listed in Appendix 1. The final version of the inclusion and exclusion conditions, and the flow diagram of the review process and selection of studies are shown in TABLE 1 and FIGURE 1.

TABLE 1. Factors considered for the including and excluding criteria

The inclusion criteria include:	Exclusion criteria:
The database must be an academic database with peer-reviewed and scientific articles	Articles from non-academic databases were not used
Publication must be in English	Articles in any other language were eliminated
The article must be free and accessible online and full-text article.	Pay-for articles, or any other extra permission were not considered
The article must be rich in information	Articles with biased and poor summary

and relevant to subject of study	were excluded
Articles should focus on the subject “university student”	Articles with workers or younger students were abandoned
The article must be quantitative study	Literature reviews and qualitative studies were excluded

FIGURE 1. Flow diagram of the review process and selection of studies



### 4.3 Data analysis

Content analysis is a method that can be used in an inductive or deductive manner along with qualitative or quantitative studies. In nursing research, qualitative content analysis is commonly used (Elo & Kyngäs, 2008). Given the currently limited number of studies on university students' mental health, stress and coping strategies because of COVID-19, thus, this thesis will use an inductive qualitative content analysis approach.

In order to perform inductive content analysis, qualitative data needs to be organized, which involves creating categories, explaining, coding, and abstractions (Elo & Kyngäs 2008). According to Elo and Kyngäs's (2008) inductive analysis method, the authors of the thesis would carefully read the articles and compile them in results table (appendix 1) to group the content into

to main categories, based on their search questions, one called the causes of stress and the other called coping strategies. After organization, the main results were grouped according to similarities and dissimilarities. Subcategories were developed based on these two main categories. The specific results can be found in TABLE 2 and TABLE 3

TABLE 2. Categories of causes of stress among university students

Category 1: external factors	<ol style="list-style-type: none"> <li>1. Situational variables</li> <li>2. Task overload</li> <li>3. Social stressors</li> </ol>
Category 2: internal factors	<ol style="list-style-type: none"> <li>1. Physical stressors</li> <li>2. Psychological stressors</li> </ol>

TABLE 3. Coping strategies for stress among university students

Category 1: social support	<ol style="list-style-type: none"> <li>1. Family functioning</li> <li>2. Spiritual support</li> </ol>
Category 2: acceptance	<ol style="list-style-type: none"> <li>1. Positive reframing, planning, and resilience</li> <li>2. Try to take steps to change</li> </ol>
Category 3: mental disengagement	<ol style="list-style-type: none"> <li>1. Avoidance strategies</li> </ol>
Category 4: humanitarian	<ol style="list-style-type: none"> <li>1. Focus on human welfare and offer help to others</li> </ol>
Category 5: self-care	<ol style="list-style-type: none"> <li>1. Follow strict personal protective measures</li> <li>2. Reading about the mechanism of COVID-19 transmission and prevention</li> <li>3. Set up a healthy structure in daily life</li> </ol>

## 5 RESULTS

After careful reading of the selected six articles and the research question, the authors have categorized the answers and explained the findings in detail through categories and subcategories.

### 5.1 Causes of stress

The causes of stress among university students in dealing with COVID-19 can be roughly divided into two categories, one is external and the other is internal.

#### 5.1.1 External factors

The results indicate that external factors play a major role in the cause of stress in university students. Several articles claimed that situational variables concerns were a major source of stress for university students. (Kamaludin, Chinna, Sundarassen, Khoshaim, Nurunnabi, Baloch, Sukayt & Hossain 2020; Eweida, Rashwan, Desoky & Khonji 2020; Le Vigouroux, Goncalves & Charbonnier 2021; Padrón, Fraga, Vieitez, Montes & Romero 2021) Because of the transmissibility of COVID-19, they increase their chances of infection by going to public places (Eweida et al. 2020). In the meantime, schools have changed their teaching models, and university students are using more virtual environments (Le Vigouroux et al., 2021). The impact on the lives of university students caused by the lockdown is also enormous, and some of them are easily experiencing anxiety during the period of isolation (Kamaludin et al. 2020; Le Vigouroux et al. 2021). Changes in social interactions have also put pressure on university students due to environmental constraints (Padrón et al. 2021). The increased workload due to the epidemic is also a factor in the stress of university students (Eweida et al. 2020; Padrón et al. 2021). University students are not optimistic about their future job prospects or academic future because of the epidemic and the lockdown (Eweida et al. 2020; Le Vigouroux et al. 2021). There are also interpersonal conflicts affect university student stress (Le Vigouroux et al. 2021; Padrón et al. 2021).

#### 5.1.2 Internal factors

Another major stressor found in the articles reviewed is internal factors. (Kamaludin et al. 2020; Eweida et al. 2020; Le Vigouroux et al. 2021; Padrón et al. 2021) Physical stressors include infection



in oneself or family members, or even unavailability of treatment (Eweida et al. 2020; Le Vigouroux et al. 2021; Padrón et al. 2021). The others have the psychological factor of worrying about the health condition of their own lives and their relatives (Eweida et al. 2020). Some university students may experience anxiety and depression due to fear of the outbreak (Kamaludin et al. 2020; Eweida et al. 2020; Le Vigouroux et al. 2021; Padrón et al. 2021).

## **5.2 Coping strategies for stress**

The results of the articles used show that there are five categories of stress strategies used by university students to cope with the COVID-19: social support, acceptance, mental disengagement, humanitarian, and self-care. The five categories of stress strategies are designed according to the COVID-19 situation. Seeking social support is defined as emotional or instrumental support from family and friends for stress-related relationships (Dumont & Provost 1999). Acceptance is the ability to adapt to immutable negative events by keeping the individual's mental health and ability to act (Nakamura & Orth 2005). Mental disengagement relates to diverting one's mind away from a constant stressor by engaging in alternative activities to direct attention and energy to alleviate negative emotions (Kamaludin et al. 2020). Humanitarian response consists of proactive actions taken by one person to help another person in a psychosocially desperate situation (Schwartz & Sendor 2000). Self-care is a definition of the ability to maintain health and cope with illness and disability (World Health Organization 2021).

### **5.2.1 Social support**

Many of the articles reviewed agree that social support strategies such as talking to parents about their feelings during the COVID-19 and lockdown (Kamaludin et al. 2020; Kim, Sloan, Montejano & Quiban 2021), or communicating with friends about recent emotions through the Internet (Ye, Yang, Zeng, Wang, Shen, Li & Lin 2020) are effective stress coping strategies for university students. In this case, family spiritual support can better enable university students to cope with psychological problems. (Kim et al. 2021)

### **5.2.2 Acceptance**

Almost all the articles claim that acceptance is the major and most reported sources of stress for university students (Kamaludin et al. 2020; Eweida et al. 2020; Kim et al. 2021; Padrón et al. 2021; Ye

et al. 2020). Although this method can aggravate their depression level, many university students in the face of COVID-19 choose to endure (Kamaludin et al. 2020; Eweida et al. 2020; Le Vigouroux et al. 2021; Kim et al. 2021; Padrón et al. 2021; Ye et al. 2020). Moreover, there are those who will reframe, plan and then try to take steps to change (Kamaludin et al. 2020; Le Vigouroux et al. 2021; Ye et al. 2020). Compared to the previous period, university students during COVID-19 are greatly affected psychologically and the more common way of coping is through maladaptive coping strategies, but this is a temporary relief from stress and does not solve the underlying problem (Kamaludin et al. 2020.)

### **5.2.3 Mental disengagement**

To reduce the effect of stress among university students, a lot of them choose avoidance strategies. Self-distraction like watching television or working (Kamaludin et al. 2020; Ye et al. 2020) are very common among the university students. Some of them choose to trivialize the matter and refuse to take it too seriously (Ye et al. 2020). Others make themselves feel better by using drugs, cigarettes or alcohol (Le Vigouroux et al. 2021; Ye et al. 2020; Padrón et al. 2021). Some articles claimed that students might engage in behavioural disengagement, self-blaming, and venting (Le Vigouroux et al. 2021; Kamaludin et al. 2020) which is not beneficial.

### **5.2.4 Humanitarian**

To relief stressors, it is useful to have friends and family members who are supportive and encouraging. Thus, some articles revealed that there were also some university students who had adopted very healthy humanitarian strategies to cope in a better way with the epidemic by helping others (Kamaludin et al. 2020; Padrón et al. 2021). Students who live with their families or with friends are also more united and are more likely to help each other (Kamaludin et al. 2020; Kim et al. 2021) which is also a humanitarian strategy.

### **5.2.5 Self-care**

According to the COVID-19 situation, Articles showed that self-care can reduce or cope with the level of stress (Eweida et al. 2020; Padrón et al. 2021; Ye et al. 2020). For instance, to follow strict personal protective measures like wearing masks and disinfect-anting hands before and after eating (Eweida et al. 2020). Moreover, a lot of them also read about the mechanism and instructions of COVID-19 transmission and prevention (Eweida et al. 2020; Ye et al. 2020). There are also university students

who cope with the stress caused by establishing a healthy lifestyle routine (Ye et al. 2020). It is a good thing to try to adapt to unusual life phases through normal regular rest, work or study, in order to realize the importance of good lifestyles.

## 6 ETHICAL ISSUES AND TRUSTWORTHINESS

In order to write this thesis, one needs to ensure that ethically responsible and appropriate guidelines are followed in the research. Fraud and dishonesty need to be avoided. Use professional terminology and to ensure research integrity (Finnish Advisory Board on Research Integrity 2012).

All literature reviews used in this study provided accurate information and will be rewritten without changing the views of the original authors in order to avoid plagiarism. No false information will be reported and there will be no harm to participants in this study. Reliability, validity, trustworthiness, quality and rigor are important to the study of any paradigm (Golafshani 2003.)

In this thesis, all the resources will be found in the Centria's online library and those resources are appropriate for research purposes. All the materials are recent research and can be found the complete version online. Thus, high-quality studies are screened as needed, and all data are analysed systematically by two researchers together. The writers have acquainted with the topic of the thesis and the guidelines of research ethics. Good scientific practice will be ensured throughout the thesis process. Moreover, the writers have signed the thesis contract with their supervisor after the thesis plan had been accepted.

Based on the relatively small selection of articles available, there are many articles that require payment to view or that cannot be seen in their full text that are not listed, meaning further research is needed. In addition, with the current environment of the COVID-19 pandemic, consequent lockdown and lifechanging, it is worth exploring the mental health of university students, the causes and the strategies for stress among university students as time goes on.

## 7 DISCUSSIONS

This chapter briefly presents the results found from the data collected. The topic of the thesis was chosen because the authors were interested in the common effects of COVID-19 on university students and coping strategies.

### 7.1 Discussion of results

The findings suggest that university students are particularly vulnerable to psychological problems during the COVID-19 epidemic, with a higher incidence of anxiety and feelings of depression among university students compared to the general population. They are prone to further exacerbate these feelings during this period of social isolation, uncertainty and sudden transformation. Social isolation, a strict measure implemented as a result of the COVID-19 outbreak, has a profound impact on the risk of moderate to severe anxiety and depression among university students. (Fruehwirth, Biswas & Perreira 2021.) Disconnection from social support systems and extra-curricular activities at school can leave students with fewer connections to friends, organisations and hobbies. Changes in teaching patterns also make learning more challenging for university students. (Di Pietro, Biagi, Costa, Karpinski & Mazza 2020.) In addition, they are facing uncertainty about their academic future, their own health and the health of their friends and loved ones. The situation in which university students find themselves is fraught with stress and anxiety, as there is a constant fear of the unknown in addition to loss of control, which makes them particularly vulnerable to mental health problems. These psychological issues are compounded by the need for family and social support and involvement. The FSHS are also part of the social support that can promote health, well-being and fitness for student learning. (Finnish Student Health Service 2021.)

This study also found that university students often use maladaptive coping strategies to cope with the COVID-19 epidemic. Maladaptive coping strategies included avoidance, self-blame and substance use. University students believed that the use of maladaptive coping strategies could alleviate the crisis. However, this is only a temporary removal of the stressor. If the problem is not addressed well and appropriate measures are not taken, the consequences of the crisis will become more complex. As students, they need to learn the appropriate strategies to use in times of crisis. Maladaptive coping can often lead to further psychological distress and depressive symptoms. For this reason, universities need

to disseminate timely information about the pandemic and any academic-related issues in order to reduce students' symptoms of stress and anxiety. (Kamaludin et al., 2020.)

The findings suggest that practicing self-care becomes a new strategy for coping with COVID-19, which is different from other adaptive and non-adaptive strategies. Basic self-care will keep a university student's immune system strong and maintain emotional stability. The method of self-care is to get enough sleep, exercise regularly, eat a good diet and maintain a positive mood. Self-care also includes ways to reduce the spread of coronavirus, such as wearing a mask, maintaining social distance, hand hygiene and monitoring personal health. (Nguyen & Huynh 2020.)

Studies have shown that external factors are one of the main factors affecting students with COVID-19. Most universities in the world closed their campuses and dormitories during the COVID-19 outbreak, and students were forced to leave campus communities, friends, classrooms, and familiar daily life. However, learning did not stop there, as many universities began offering distance learning and adopting online learning models. (Di Pietro, Biagi, Costa, Karpinski & Mazza 2020.) This is a challenge for some university students, and it can also lead to more study tasks, cancellation of internship programmes, barriers to job prospects and changes in interpersonal interaction patterns.

The mental health of university students is affected by family, society and themselves. Firstly, family functioning and spiritual support are necessary for university students. They reflect the role of society and family on the psychological and physical well-being of university students. Secondly, students can actively re-plan their future and improve their resilience. Previous studies have shown that resilience is an effective coping mechanism, and that resilient people can 'bounce back' from stressful experiences quickly and effectively (Tugade & Fredrickson, 2004). This helps students to respond positively to the environmental changes brought about by COVID-19. This coping mechanism is used to change students' perceptions and behaviours in order to handle and reduce the relationship between people and their environment in difficult situations. (Lazarus & Folkman, 1984, 117-120.)

Mental disengagement includes self-distraction, denial, substance use, behavioural disengagement, venting and self-blaming. It reflects the adoption of avoidance strategies by university students to cope with COVID-19. Humanitarian is an act of providing help to others. Although social distance is limited by COVID-19, humanitarian coping strategies bring university students closer to others. Self-care includes two different aspects, on the one hand, self-protection measures to combat the COVID-19 epidemic, and on the other hand, students can maintain a daily routine. Self-protection measures

include understanding the transmission routes and susceptible groups to COVID-19 in order to reduce the probability of being infected. At the same time, maintaining a daily routine helps students to live a more regular life, for example, by maintaining adequate nutrition, participating in physical activity, waking up on time and getting enough sleep every day. This is one of the easiest ways to keep students physically and mentally healthy and to promote well-being.

Therefore, the holistic approach of university teachers to educating students about their academic, social and emotional needs is particularly important, especially during the COVID-19 epidemic. The distinction between students who experience psychological or physical barriers and those who do not have other barriers can be constantly widening. Changes in teaching styles and future academic prospects also have a considerable impact on students' sense of belonging and self-worth at school, which is crucial for inclusion education.

## **7.2 Personal learning and professional growth**

Through this thesis, we learned not only about stressors and ways to cope with stress among university students during COVID-19, but also how to write a literature review as well as what qualitative analysis, quantitative analysis, and inductive content analysis are. By a comprehensive collection combined with reading a large amount of research literature, in order to give a systematic and comprehensive overview of the research problem a research results as well as new trends. This will also be very helpful for our future work.

Writing a thesis can improve the overall quality and professional skills of nurses, as well as develop an awareness of research and the importance of scientific nursing research. Furthermore, it is important for us to know the benefits of nursing research to nursing and patients, and that nursing research and nursing practice are inextricably linked. (Tingen, Burnett, Murchison, Zhu,2013). Moreover, we can improve our theoretical knowledge by going through a lot of literature reviews, but also learn the latest technology of others, as well as expanding the ideas for developing new skills. Besides, the process of writing a thesis can also stimulate our enthusiasm for learning and is also a good way to enhance our training in creative thinking, allowing us to acquire knowledge while also exercising practical working skills. In addition, writing an essay can also develop our ability to identify problems and solve them by ourselves. According to nurse's competence requirements the skills to develop evidence-based nursing

practices are important. All in all, writing a thesis is a great way to enhance one's learning skills. (Sharghi, Alami, Khosravan, Mansoorian & Ekrami 2013).

### **7.3 Recommendations for future studies**

Based on the findings of this study, the authors suggest that universities could assess students on the Stress and Coping Model Scale on a regular basis. The Stress and Coping Model Scale can be scored based on the estimated adjustment degree of each need of the people experiencing these events. If students are identified as having psychological difficulties, teachers should take timely intervention strategies. This is because timely action is crucial for students at the university. This helps to reduce the risk of mental disorders among university students. Rather than waiting for students to open up, families, teachers and friends of university students should be alert to signs of anxiety, stress and depression and provide them with support and encourage them to seek expert advice.

Because of the limits of social distance between university students, there is a shift in the way people communicate with each other. Universities can provide psychological help through telephone counselling, hotline services and chatbots, through which students can freely and anonymously express their thoughts and concerns. Research suggests that digital mental health interventions are likely to play an important role in young people's lives. With the support of artificial intelligence, first-generation digital mental health interventions could be effective in treating anxiety and depression. It not only reduces the incidence of anxiety and depression in young people, but also follows the social distance during the COVID-19 epidemic. (Kretzschmar, Tyroll, Pavarini, Manzini, & Singh 2019.)



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APPENDIX 1

Author(S) Year & Country	Article	Purpose of the study	Main results
<p><b>Article 1</b> Kamaludin et al., 2020 Malaysia</p>	<p>Coping with COVID-19 and Movement Control Order (MCO): Experiences of University Students in Malaysia.</p>	<p>To assessed on the students the usage of adaptive and maladaptive coping strategies during COVID-19.</p>	<p>More acceptance strategies and less social support seeking strategies.</p> <p>Male students used more maladaptive coping strategies; female students used more adaptive strategies.</p> <p>Students who were with their families used more acceptance strategies.</p> <p>Among Malaysian university students, seeking support was the least popular coping strategy.</p>
<p><b>Article 2</b> Eweida et al., 2020 Egypt</p>	<p>Mental Strain and Changes in Psychological Health Hub among</p>	<p>To analyze the associations between the participants'</p>	<p>COVID-19 has an impact on their mental health.</p>

	<p>Intern–Nursing Students at Pediatric and Medical–Surgical Units amid Ambience of COVID–19 Pandemic: A Comprehensive Survey.</p>	<p>characteristics and the dimensions of mental strain during COVID–19 pandemic as well as to explore the potential influencing factors for developing psychological distress.</p>	<p>Students felt nervous, scared and angry from the increased workload.</p> <p>Infection, transmission to family members, lack of access to treatment and exposure to situations were the most stressful factors among the interns.</p> <p>The use of protective equipment, strict adherence to personal protective measures and reading up on the mechanisms of COVID–19 transmission and prevention were the most frequent coping strategies.</p> <p>Avoid media news or try to keep busy</p>
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			with family activities to cope with the outbreak.
<p><b>Article 3</b> Le Vigouroux et al., 2021 France</p>	<p>The Psychological Vulnerability of French University Students to the COVID-19 Confinement.</p>	<p>To measure the emotional state of university students during lockdown and identified the relevant situational and psychological factors.</p>	<p>University students are worried about their health and the health of their loved ones.</p> <p>University students with COVID-19 symptoms had symptoms of anxiety and depression.</p> <p>Coping strategies used during the lockdown, avoidance strategies (i.e., self-diversion, denial, substance use, behavioral disengagement, venting, and self-blame).</p> <p>Virtual environments increased their</p>

			<p>hassle stress and anxiety</p> <p>Concern about their health, their future job prospects, avoidance strategies (i.e., behavioral disengagement, denial) and little use of positive reframing or acceptance.</p>
<p><b>Article 4</b> Kim et al., 2021 America</p>	<p>Impacts of Coping Mechanisms on Nursing Students' Mental Health during COVID-19 Lockdown: A Cross-Sectional Survey</p>	<p>The aim of this study was to explore the influence of coping mechanisms as predictors of stress, anxiety, and depression among nursing students during the COVID-19 lockdown.</p>	<p>High spiritual support was also independently associated with 2-fold lower risk of moderate-to-severe depression.</p> <p>High resilience, family functioning, and spiritual support were predictors of lower stress, anxiety, and depression.</p>
<p><b>Article 5</b> Padrón et al.,2021</p>	<p>A Study on the Psychological</p>	<p>To analyze the main sources of stress</p>	<p>The results show that university</p>

Spain	Wound of COVID-19 in University Students	associated with the COVID-19 context, and to address the issue of which coping strategies were used by students, and how such strategies were related to psychological health during the lockdown.	students experience high levels of psychological stress during Spanish isolation. Psychological difficulties were related to the experience of stressors in several areas. Coping strategies were to focus on seeking support from or offering help to others (other-oriented), to accept the uncontrollable nature of the crisis, to focus on the positive aspects and try to take steps to change the controllable ones (reframing), to engage in activities that can help one to disengage from stressful situations (disengagement activities), and to maintain/establish
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			a healthy structure in one's daily life (structure/healthy routines).
<b>Article 6</b> Ye et al.,2020 China	Resilience, Social Support, and Coping as Mediators between COVID-19-related Stressful Experiences and Acute Stress Disorder among College Students in China	To investigate the association of COVID-19-related stressful experiences with ASD and possible psychological mechanisms of the association among college students.	The results show that stressful experiences were positively and significantly correlated with ASD, whereas it was negatively associated with protective indicators, including resilience, social support, and adaptive coping strategies.