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Description of Character Shift of Nursing Students During the Covid-19 Pandemic Era: A Review

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ABSTRACT The Covid-19 pandemic, directly or indirectly, according to many studies has proven to have caused a shift in the character of nursing students. The purpose of this study is to identify the types of nursing students' character shifts that occurred during the Covid-19 pandemic and how to manage them. The implication of this study is to contribute the management of handling a shift in the character of nursing students during the pandemic. This study used a document review and was supported with the PRISMA Analysis. The document was screened from 1,583,100 records in the Google search engine. The core documents were filtered through Google Scholar, PubMed, Semantic Scholar, and Other Sources. The keywords used for the search include management, nursing education, character shift, nursing students, and the Covid-19 pandemic. The PRISMA Analysis design provides indicators to be more focused in the search that includes respondents' character shift, research methods (quantitative), research quality, surveys, document reviews, publication year (2020-2021), results (the focus of shifting character of nursing students during the Covid-19 pandemic), and the language (English). This study review was supported by the PICOT (Population, Intervention, Comparison, Outcome, and Time) model as the instrument to help the screening for quality records. Results showed the total documents out of 1.583.100 records, 108 records were screened, and 21 records were eligible (n=21) that met the requirements for review, i.e. from Google Scholar (n=8), PubMed (n=5), Semantic Scholar (n=4), and Other Sources (n=4). The study conclusion suggested the need for a character shift program for nursing students during the Covid-19 pandemic. The problems that have been found in the 21 review documents of character shifts in nursing students are mental/psychological shifts, shifts in learning/learning methods, shifts in attitudes, and shifts in lifestyle. The results of this study showed there were 15 journals that met the criteria for PRISMA analysis and 100% of the PICOT model in which they also indicated that there were shifting of nursing students' characters during the covid-19 pandemic

INDEX TERMS character, nursing students, management, Covid-19.

I. INTRODUCTION

The novel global of Covid-19 has changed the teaching-learning process among millions of students across the globe, one of its worst consequences is a shift in character [1]. This change in character varies greatly from one student to another, including those that occur in Indonesian and the world of nursing education in general [2]. Before the Covid-19 pandemic, students took part in the offline learning process, but after a pandemic, this system turned online [3]. During the pandemic, the government through the ministry

of education imposed a new policy, namely that the entire learning process was required to be online [4]. Online learning in Indonesia is regulated by the Ministry of Education and Culture Circular No. 4 of 2020, which is about the Implementation of Education in the Covid-19 Period. Online learning is a type of learning process that utilizes an internet network connection in the implementation of the learning process [5]. This policy does not only happen in Indonesia, it also happens in many countries [6]–[8]. A major change in education is striking in the form of online learning

that has highlighted some of the problems associated with the COVID-19 pandemic [9]. The emergence of distance learning formats, as well as online education, requires the possessing of mobile phones, the internet, a number of software and hardware [5]. COVID-19 has prompted many faculties to offer online education without a well-considered and durable learning plan [10]. Several nursing researchers have proven that there is a shift in instructional designs due to the Covid-19 crisis [11] COVID-19 not only requires teachers to radically adapt their teaching environment, educational strategies, and classroom delivery but also has a significant effect on students' learning experiences resulting in a shift in their character to manage [12].

Everything described above is the impact of the Covid-19 pandemic, which has a direct or indirect influence on the character of students [4]. The COVID-19 pandemic has resulted in a shift in character due to challenges in the teaching and learning process. In general, it is related to the relevance of student attendance in health services, meeting social needs, knowledge, skills, and attitudes [13]. In particular, there is a paradigm shift associated with the transfer from face-to-face teaching to online teaching [14]. From here, nursing education professionals are challenged to face adaptation to the new global context through online modalities [15]. The challenges of students, educators, education managers, and policymakers also produced a wider character shift, due to the global pandemic panic [8]. In Spain, 92.8% of teachers experienced emotional exhaustion, stress, grief, or anxiety due to confinement and distance education [16]. These problems can result in student stress [17]. Online education has created a very visible gap affecting students' ability to learn and be successful Students who are restricted at home may not have access to the Internet or Wi-Fi [19]. Students in rural or remote areas may

not have access to more sophisticated learning materials such as videos or PowerPoint presentations [20]. Teaching skills may have an impact on students' stress level [13]. All phenomena related to the shift in the character of nursing students need to be addressed through a study so that the recommendations can be justified academically. On this basis, we compiled this research with the background of character shifting. This study highlights the shift in several characters of students of nursing during the pandemic of Covid-19 which emphasizes on shifts in mental/psychological characters, shifts in studying or learning methods, shifts in attitudes and shifts in lifestyle among nursing students. Many former researches highlighted the enforcement of stress during the Covid-19 pandemic [21] [22].

The aim is to identify the types of character shifts among nursing students and provide some alternative solutions to the problems. The study used a document review method due to limitations of funds, distance, time, and government regulations during the Covid-19 pandemic. However, the implication of the study recommendation in the nursing education management might be considered particularly during the pandemic of Covid- 19.

II. METHODS

This research used document review and PRISMA analysis method. The initial step of the research was the determination of keywords in the literature search, namely nursing education, management, character shift, nursing students and the Covid-19 pandemic (FIGURE 1). The second step is to confirm the search technique through Google Scholar, PubMeb, Semantic Scholar and other sources. Document indicators were nursing students as the respondents, research method (quantitative, document reviews), years of publication (2020-2021), results and the

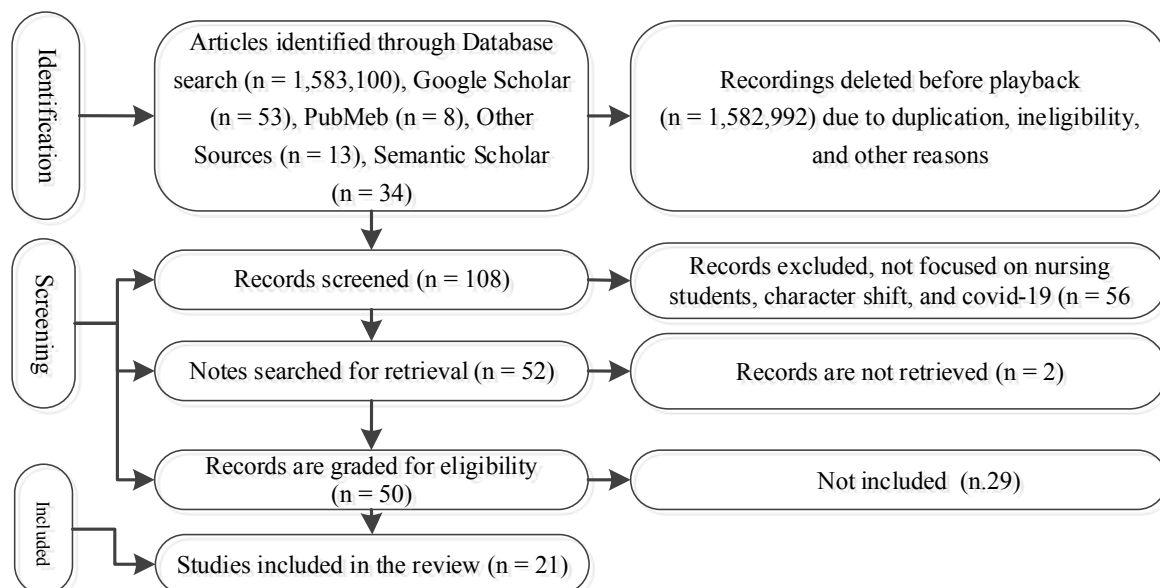


FIGURE 1. Result Analysis based on PRISMA Diagram

language (English). Inclusion criteria were active nursing students. The exclusion criteria of this study were research articles whose publications were not from Google Scholar, Semantic, and PubMeb. Research results focus on shifting student character nursing) and the language used is English. The research methods of literature review have been used widely and the findings of the research that can be acknowledged academically effective and efficient. [23], [24].

The third step was document selection using the PICOT (Population, Intervention, Comparison, Outcome, and Time) model. The details include population (P) namely nursing students, intervention (I) namely management, comparison (C) namely shifting character, comparison (O) nursing

education and timing (T) during the covid-19 pandemic. Limited publication year the document published from 2020-2021.

III. RESULT

The PRISMA Strategy was used during the review process of four stages: identification, screening, eligibility and inclusion as follows. The diagram diagram 1. above shows a summary of the Identification stage where there are 1,583,100 documents in the database, with details 108 qualified and 1,581,773 deleted due to duplication, non-illlegality and other reasons. In the Screening stage, out of 108 documents, 52 records were taken for retrieval and 56 were not included because they were not focused. Meanwhile, in the final stage (Including), 21 records will be

TABLE 1
Reviewed Documents

No.	Author, year, title	Country	Method	Output
1	Nabavian et al., (2021). Experiences of Nursing Students in the Care for Patients Diagnosed With COVID-19: A Qualitative Study	Iran	Qualitative	Rendering to the findings of this research, the learning system and university administrators can help reduce psychological stress and improve the quality of care for nursing students [2].
2	Bahcecioglu Turan et al., (2021). Analysis of anxiety levels and attitudes of nursing students toward the nursing profession during the COVID-19 pandemic	Turkey	Quantitative	It was found that students of nursing had a positive and high level of attitude towards the nursing profession. Furthermore, the results show that attitudes towards the nursing profession decreased significantly as anxiety increased [6].
3	Turkles et al., (2021) Diaries of Nursing Students during the COVID-19 Pandemic: A Qualitative Descriptive Study	Turkey	Qualitative	Empowering students of nursing to handle challenging emotions and thoughts commencing from their educational time will contribute to their studies and professional development [19].
4	Morin et al., (2020) Nursing education after COVID-19: Same or different?	Wisconsin	Qualitative	Second, online education has made the problem of inequality very visible which affects the ability of students to learn and be fruitful. For instance, students who are restricted at home may not have access to the Internet or Wi-Fi; those who are in remote areas may not have access to the bandwidth required to access more technologically modern learning materials, such as videos, voice mail, Power Point presentations; regardless of the geographic location, they may not have access to the Internet at home. Those limitations require bigger sensitivity of faculty when they implement online education. Rethinking online presentations Information [3].

TABLE 1
(continued)

No.	Author, year, title	Country	Method	Output
5	Jes et al., (2020) Experiences of Nursing Students during the Abrupt Change from Face-to-Face to e-Learning Education during the First Month of Confinement Due to COVID-19 in Spain	Spain	Qualitative	The introduction of e-learning sets limits for older students, those living in rural areas, with work and family responsibilities and with limited electronic resources. [20].
6	(Duong et al., (2020) Digital Healthy Diet Literacy and Self-Perceived Eating Behavior Change during COVID-19 Pandemic among Undergraduate Nursing and Medical Students: A Rapid Online Survey	Taiwan	Quantitative	Relationship with changes in eating behavior during the COVID-19 pandemic among nursing students. [12]
7	Galvin et al., (2020). A Longitudinal Cohort Study Investigating Inadequate Preparation and Death and Dying in Nursing Students: Implications for the Aftermath of the COVID-19 Pandemic	English	Quantitative	The data is considered in the context of the COVID-19 pandemic, with inadequate preparation and scale of death and mortality being two significant stressors during an emergency. [25].
8	Casafont et al., (2021) Experiences of nursing students as healthcare aid during the COVID-19 pandemic in Spain: A phenomenological research study Claudia	Spain	Qualitative	Learning, hesitant emotions and variation are categorized on a personal level [15].
9	Aslan et al., (2021). Nursing students' views on the COVID-19 pandemic and their perceived stress levels	Turkey	Quantitative	The results of this study indicate that age, gender, and several variables related to the pandemic process affect the level of stress felt by nursing students [26].
10	Sveinsdottir et al.,(2021). Predictors of university nursing students burnout at the time of the COVID-19 pandemic: A cross-sectional study	Iceland	Quantitative	The main finding indicated that 51% of the variability in students' personal burnout was explained by perceived stress, mental health, and perceived support. Furthermore, students' perceived stress, support, and level of education estimated 42% of the variability in their academic burnout [27].
11	Ersin et al., (2020). The determination of the perceived stress levels and health-protective behaviors of nursing students during the COVID-19 pandemic	Turkey	Qualitative	Examination of the protective measures adopted by students against COVID-19 showed that the stress subscale scores felt by students who did not use masks and disposable tissues when coughing/sneezing were statistically significantly higher ($p < 0.005$) [28].

TABLE 1
(continued)

No.	Author, year, title	Country	Method	Output
12.	Hernandez et al., (2021). Nursing students' experience and training in healthcare aid during the COVID-19 pandemic in Spain.	Spain	Survey	Although three out of four students are willing to provide medical assistance, they recognize that they are not particularly ready in the intensive care area and require training with simulations to increase anxiety and stress levels in management of critical patient and simulation in ventilation [29].
13	Garcia et al., (2021) Analysis of anxiety levels of nursing students because of e-learning during the covid-19 pandemic.	Spain	Quantitative	In general, most nursing students are emotionally affected by the high level of anxiety of the nature of the country during the COVID-19 outbreak (2021).
14	Simionescu et al., (2021) The Effects of COVID-19 Pandemic on Stress Vulnerability of Nursing Students According to Labor Market Status Mihaela	Romania	Quantitative	The results showed that students who worked were more susceptible to stress than those who did not work before and during the pandemic. Women record significantly higher stress scores than men during epidemic periods [30].
15	Vitale et al., (2020). How the Italian nursing student deal the pandemic COVID-19 condition.	Italy	Quantitative	In light of the health emergency situation of Covid-19, our initial concern was to find a large number of students with difficulty in mentally processing this situation even with problems such as depression, as their future professions are heavily involved in managing the pandemic [8].
16.	Romero-Blanco et al., (2020). Sleep Pattern Changes in Nursing Students during the COVID-19 Lockdown.	Spain	Quantitative	The poor sleep quality prevalence among university students is high, and among the nursing students, it has been connected with reduced performance, behavioral, eating patterns changes, and even they show aggressive behavior because of the sleep patterns changes [11].
17.	Ballad et al., (2021). Self-directed learning readiness and learning styles among Omani nursing students: Implications for online learning during the COVID-19 pandemic.	Oman	Quantitative	Since no single learning environment can meet the needs of every CB, nurse educators must implement teaching and learning strategies aimed at SDL that appeal to a wide range of students [31].
18	Kim et al., (2021). Academic Success of Online Learning in Undergraduate Nursing Education Programs in the COVID-19 Pandemic Era.	Korea	Quantitative	To increase satisfaction with online classes, the flow of cyber classes should be considered when designing teaching and learning methods for undergraduate nursing education programs [32].

TABLE 1
(continued)

No.	Author, year, title	Country	Method	Output
19	Nu Nur Guven Ozdemir., (2020). The relationship between nursing students' technology addiction levels and attitudes toward e-learning during the COVID-19 pandemic: A cross-sectional study	Turkey	Quantitative	Findings: Nursing students have low levels of technology addiction and somewhat positive attitudes towards e-learning [33].
20	Wallace et al., (2021). Nursing student experiences of remote learning during the COVID-19 pandemic	USA	Quality	Faculty have the opportunity to deal with student stress and design distance courses in such a way as to facilitate student engagement and community building [34].
21	Oducado et al., (2021) Online Learning in Nursing Education during the COVID-19 Pandemic: Stress, Satisfaction, and Academic Performance	The Philippines	Quantitative	Results and very stressful (47.2%). In addition nursing students had low satisfaction (37%) satisfaction (46.3%) with online learning during 19 outbreak [35].

below summarizes the review of the 21 eligible documents.

The table above is the summary of 21 documents from all eligible literature reviewed using PRISMA. The study was conducted in thirteen countries (Iran, Turkey, Wisconsin, Spain, Taiwan, England, Iceland, Romania, Italy, Oman, Korea, and Philippines). The twenty-one documents were published between 2019 to 2021. The research methods

carried out include qualitative, quantitative and survey and document review. The results show that there are 4 groups of character shifts, namely: first mental/psychological (n = 12 or 57.1%), learning/learning methods (n = 5 or 23.9%), attitudes (n = 2 or 9.6%) and lifestyle (n = 2 or 9.6%). The table projects a mental/psychological shift due to the COVID-19 pandemic. From result research reveals that

TABLE 2
PICOT Selection

Population	Intervention	Comparison	Output	Time
From the results of the documents above 100% (21 documents) the population is nursing students	Of the 21 Documents available: a. Nursing education management 3 (14.2%) b. Nursing management 4 (19.0%) % c. 7 character shift (% 33.3%) d. Nursing students 4 (19.0%) e. Covid-19 pandemic 3 (14.2%)	All 21 documents (100%) were talking about the character shift of nursing students	The results of those 21 documents a. Need to get cross-sector support, namely cooperation between the government, higher education institutions, NGOs, for shifting nursing students (11 documents or 52.3%) b. Parent m students and students make an agreement to overcome the shift in student character (5 documents or 23.8%) c. However, parents are also responsible for preparing learning facilities and infrastructure at home so that students are comfortable studying (document 5 or 23.8%)	Covid-19 pandemic

nursing students find online learning during the outbreak of Covid-19 stressful (44.4%) [35]. Second, the pandemic has triggered a shift in learning/learning methods from face-to-face lectures in the classroom to online lectures [3]. the third character shift is a change in attitude [6]. The last one is the lifestyle [11].

From the [TABLE 1](#) and the [TABLE 2](#), it can be concluded that the researcher agrees that there are 4 groups of character shifts, namely: Mental/psychological, learning methods, Attitudes and Lifestyles. Of the 21 journals in table 1 above, it was found that they described the character changes taking place during Covid-19. The other positive point is all agreed that the pandemic has major influence on the students of nursing' lives, inside and outside their families. The shortcoming is that the journals do not denote all nursing students from the 5 continents, because they were from 12 countries only. Anyhow, their conclusions contribute constructive aspect to the profession of nursing.

The shortcoming of this study is that it was not conducted directly because of resources, time, respondents, and geographical location particularly during Covid-19 era. Our research does not focus on specific character of students, for instance learning patterns [21]. Former studies related to the shift in the character of nursing students during the covid-19 pandemic mostly discussed about stress. While the focus of study on character shifts was more diverse and arose in remote areas [36].

IV. DISCUSSION

The Covid-19 pandemic has resulted in a shift in the character of nursing students. The shift covers four major aspects as identified in the table above to be discussed as follow:

First. Mental/psychological shift. Mental/psychological during the COVID-19 pandemic Nursing students stress, fear, panic, confusion, emotions and behavior changes [30]. The results showed that students who worked were more susceptible to stress than those who did not work before and during the pandemic. Because all student activities with lecturers at universities are limited by the government, face-to-face meetings between lecturers and students or lecturer students are interrupted due to the prevailing pandemic rules (Minister of Education and Culture Number 03/KB/2021). An example of this shift in psychological character occurs in 62 countries, with research sample 30,383 students [4]. The research reveals that amid worldwide lockdowns and the transition to online learning is putting them under a lot of mental stress [37] Ways to overcome this can be in the form of providing socialization to nursing students about techniques for online learning strategies through online, zoom and webinars, giving encouragement, providing motivation to students. This technique was recommended by many researchers. The realization of these steps requires cross-support, namely cooperation between the government, higher education institutions, NGOs, parents of students and

students makes an agreement to overcome the shift in student character

Second, the shift in learning methods. During the pandemic there was a change in behavior in the teaching and learning process on campus. The research results contained in the table above prove that online education has made the problem of inequality very visible that affects students' ability to learn and be successful [31]. Other research suggests that students who are restricted at home cannot have access to the Internet or Wi-Fi; they are in remote areas and do not have access to the bandwidth required to access more modern learning materials such as videos, voice mail, or Power Point presentations [3]. Geographical location in other studies is also cited as an influential factor in learning shifts because students do not possess access to their PCs at home. In order to overcome the problem of shifting learning/learning methods above, efforts need to be made to find good alternative solutions between educational institutions [38]. Parents of students and other components to implement online learning and teachings strategies during the pandemic of Covid-19 [1]. Another solution is in the suggestions for nursing students who have cellphones, laptops, computers, can take online lectures, zoom, or webinars. While nursing students who live far from internet network access and do not have a cellphone, laptop, or computer, the solution is to continue studying offline on campus, by studying in groups, for example one group of 7 students or 8 students in the teaching and learning process in the classroom.

Third, a shift in attitude. During the Covid-19 pandemic, the results from the above study showed that attitudes towards nursing profession students suddenly decreased because students previously had the freedom to do activities on campus [39]. Due to the pandemic, their activities are very limited, they cannot mingle freely with friends in class, campus grounds, libraries, laboratories, cannot play freely, cannot study in classrooms, cannot communicate with friends or with lecturers on campus, student activities on campus are limited by government regulations [6]. The shift in the attitude of nursing students [40]. This happened because of the mandatory application of policy rules set by the government and higher education institutions for the online teaching and learning process. (Minister of Education and Culture Number 03/KB/2021). Students ultimately experience anxiety, especially for students, their dependence on technology facilities cannot fully support lectures [33]. The solution to this problem can be by providing enthusiasm, motivation, direction, understanding, and understanding to nursing students about the rules set by the government, and or by policy makers including the rules of higher education institutions to overcome the pandemic. The second is to try to understand the benefits behind the new rules regarding efforts to prevent COVID-19.

Fourth, the shift in lifestyle character. The research table above explains that the lifestyle of nursing students has shifted. During a pandemic high prevalence of poor sleep quality among college students, there is a decrease in performance, changes in behavior and changes in eating patterns [12]. This lifestyle shift occurs as a result of stress, anxiety, emotional pressure, fear, depression, suicidal tendencies, public reputation and insight. [31]. During the pandemic of Covid-19 the campus was closed, students living in dormitories were told to go to their parents' homes, online lectures from home, lecture facilities were not available at family or parents' homes, did not study comfortably at home, felt lonely, the student concerned could not have entertainment activities at home. out of the house [35]. In order to overcome the problems above, it is necessary to have an approach with effective communication to students by parents and also the educational institution concerned to ensure this pandemic period. However, parents are also responsible for preparing learning facilities and infrastructure at home so that students are comfortable studying.

IV. CONCLUSION

This article tries to reveal the consequences of Covid-19 to the character of nursing students. The purpose is to identify the types of nursing students' character shifts that occurred during the Covid-19 pandemic and how to manage them. We found 2 major impacts of the pandemic to the nursing students' characters, i.e. mental/psychological shifts, learning shifts/learning methods, attitude shifts and lifestyle shifts. The benefits of this study can be used as a reference to determine the shift in the character of nursing students caused by the pandemic. Besides, it can also be used as research material. The drawback of this research is that it was not done directly due to the pandemic period, apart from that geographically we were unable to contact them. Moreover, the research took place during a pandemic. However, we hope that future research will be more incentivized or more focused.

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