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Online Learning: Optimism and Psychological Well-Being among Nursing Students

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Abstract

The shift to online learning in nursing education presents both opportunities and challenges, particularly concerning student psychological well-being. Optimism plays a crucial role in coping with academic stress, enhancing resilience, and increasing academic satisfaction. Factors such as social support, coping strategies, and time management also influence student psychological well-being. This study aimed to determine the relationship between optimism and the psychological well-being of nursing students in online learning. This study utilized a quantitative correlational design. Stratified random sampling was used to select a sample of 400 students. The study adapted the Psychological Well-being Scale (PWBS) and the Life Orientation Test-Revised (LOT-R) as instruments. Univariate analysis involved frequency and percentage distributions, while bivariate analysis used the Chi-Square test. Results: The study's findings showed a significant value ($p<0.001$). Among the variables, most students from the Faculty of Nursing at Universitas Padjadjaran exhibited low optimism (53.0%) and low psychological well-being (51.0%). There is a significant relationship between optimism and psychological well-being among nursing students during online learning ($p<0.001$). These findings highlight the need to evaluate the online learning process and engage with students to identify the reasons behind their low levels of optimism and psychological well-being.

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Introduction

Since the COVID-19 pandemic, several key sectors have undergone significant changes, including the education sector. One significant change is the growing use of online learning in higher

education, particularly in nursing. Although COVID-19 cases are now under control, online learning remains widely used as an alternative to in-person learning. Online learning offers flexibility in education, allowing students to access materials anytime and anywhere. However, the transition from conventional learning to online learning also presents its own challenges, particularly concerning students' psychological well-being.

Nursing students face high academic demands, clinical practice requirements, and emotional pressures that can affect their psychological well-being. Psychological well-being, as conceptualized by Ryff, encompasses six dimensions: autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. These dimensions are essential for nursing students, as they influence both academic success and professional readiness (Ryff, 2013). Studies have shown that psychological well-being plays a crucial role in determining nursing students' academic and professional success (Keyes, Shmotkin, & Ryff, 2002; Ryff, 2013). In the context of online learning, factors such as social isolation, difficulties in time management, and limited direct interaction with lecturers and peers can pose risks to students' psychological well-being (Almahasees, Mohsen, & Amin, 2021; Hufnagel, 2020).

One factor contributing to psychological well-being in online learning is optimism. Optimism is defined as an individual's belief that future outcomes will be positive and that they have control over their experiences (Kleiman et al., 2017). The relationship between optimism and psychological well-being can also be explained through the broaden-and-build theory of positive emotions (Fredrickson, 2001). This theory posits that positive cognitive orientations, such as optimism, broaden individuals' thought–action repertoires and facilitate the development of enduring personal resources, including resilience, social support, and effective coping mechanisms. As a result, optimistic individuals are better equipped to manage stress and maintain psychological well-being. Empirical studies support this theoretical linkage, showing that optimism is associated with better stress management, higher resilience, and greater academic satisfaction among students (Gallego-Gómez et al., 2020; Miranda & Cruz, 2020; Sabouripour, Roslan, Ghiami, & Memon, 2021; Sabouripour & Roslan, 2015). In the context of online learning, optimism is also associated with increased motivation to learn, academic engagement, and overall psychological well-being (Sabouripour et al., 2021; Sun & Liu, 2023).

Moreover, psychological well-being in online learning can also be influenced by other factors such as social support, coping strategies, and time management skills. Social support from family, friends, and lecturers can help students overcome the challenges of online learning (Dong et al., 2024). Adaptive coping strategies also enhance psychological well-being by helping students manage academic stress and overcome online learning difficulties (Chandra, 2021).

Despite the growing body of literature, several important gaps remain. First, much of the existing research has focused on general student populations, with limited attention to nursing students who face unique academic and clinical challenges. Second, there is a lack of research examining this relationship in the context of sustained or post-pandemic online learning environments, where hybrid or fully online systems continue to shape students' experiences. Therefore, this study aims to examine the relationship between optimism and psychological well-being among nursing students engaged in online learning. By addressing these gaps, this study seeks to provide a more comprehensive understanding of how optimism functions as a psychological resource to support students' well-being amid the demands of online education.

Thus, this study is expected to contribute to the development of a more inclusive and responsive online learning model that meets the needs of nursing students, ultimately improving the overall quality of nursing education. The findings of this study can also serve as a foundation for developing interventions to enhance students' optimism and psychological well-being, better preparing them for future academic and professional challenges.

Materials and Methods

Research Design

This study employed a quantitative research design using correlational methods to investigate the relationship between optimism and the psychological well-being of nursing students.

Population and Sample

The research population consisted of active undergraduate students of the Nursing Faculty at Universitas Padjadjaran engaged in online learning, originating from the Jatinangor and Pangandaran areas, totaling 836 students. The number of participants selected from each stratum was determined proportionally according to the size of each subgroup relative to the total population. Subsequently, simple random sampling was applied within each stratum to select respondents. This method was chosen to reduce sampling bias and improve the representativeness of the sample. The method of calculating the sample size in this study uses the Slovin formula (n = N/(1 + (N x e^2)), with a margin of error of 5%, resulting in a sample size of 400 students.

Instrument

Prior to data collection, the instruments used in this study, the Psychological Well-Being Scale (PWBS) and the Life Orientation Test-Revised (LOT-R), underwent validity and reliability testing. Validity testing was conducted using item-total correlation analysis (Pearson correlation) to assess the extent to which each item correlated with the total score of its respective construct. Items with correlation coefficients greater than the critical value (r table) at a significance level of 0.05 were considered valid and retained for analysis. Reliability testing was conducted using Cronbach's alpha to assess internal consistency. The PWBS demonstrated excellent reliability ($\alpha = 0.935$), while the LOT-R showed acceptable reliability ($\alpha = 0.777$), indicating that both instruments were sufficiently consistent for use in this study.

Research Procedure

Before conducting the research, prospective respondents were first given an informed consent form to participate in the study. The researcher explained the purpose of the study and ensured there was no coercion in participation. Questionnaires were then distributed to respondents who agreed to take part in the study. Data collection was conducted online by distributing questionnaires via Google Forms to the selected sample.

Data Analysis

Data analysis in this study involved univariate and bivariate analysis. Univariate analysis was presented as frequency and percentage distributions. In contrast, bivariate analysis was conducted using the Chi-Square test in IBM SPSS 25 to examine the relationship between optimism and psychological well-being.

Ethical Clearance

Ethical approval for this study was granted by the Research Ethics Committee of Universitas Padjadjaran, reference number 114/UN6.KEP/EC/2022.

Results and Discussions

Results

Table 1. Frequency Distribution of Respondent Optimism and Psychological Well-Being (n=400)

Variables	f	%
Optimism		
Low	212	53.0
High	188	47.0
Psychological well-being		
Low	204	51.0
High	196	49.0

Table 1 indicates that the majority of respondents in this study fall into the low category for optimism (53.0%) and also for psychological well-being (51.0%).

Table 2. Frequency Distribution of Respondents' Psychological Well-Being Dimensions (n=400)

Dimensions	Category			
	High		Low	
	f	%	f	%
Autonomy	210	52.5	190	47.5
Environmental mastery	205	51.2	195	48.8
Personal growth	184	46.0	216	54.0
Positive relationships with others	188	47.0	212	53.0
Purpose in life	190	47.5	210	52.5
Self-acceptance	208	52.0	192	48.0

Based on the six dimensions of psychological well-being (Table 2), the majority of respondents have high scores in three dimensions: autonomy (52.5% of students), environmental mastery (51.2% of students), and self-acceptance (52.0% of students). Meanwhile, in the other three dimensions, the majority of respondents fall into the low category: the personal growth (54.0% of students), the positive relationships with others dimension (53.0% of students), and the purpose in life dimension (52.5% of students).

Table 3. Relationship between Optimism and Psychological Well-Being (n=400)

Variables		Psychological Well- being				Total		*p-value*
		Low		High				
		f	%	f	%	f	%	
Optimism	**Low**	132	62.3	80	37.7	212	100	0.001
	High	72	38.3	116	61.7	188	100	
Total		204	51.0	196	49.9	400	100	

As seen in Table 3, the significance value obtained in this study was 0.001. Since this significance value is less than 0.05, it can be concluded that there is a relationship between optimism and psychological well-being among nursing students at Universitas Padjadjaran during online learning.

Discussion

The analysis shows that the majority of students from the Faculty of Nursing at Universitas Padjadjaran demonstrate low levels of optimism. Several factors might contribute to this, including technical issues during online classes. Problems such as unstable internet connections and a lack of appropriate technological tools are prevalent. Hasan and Bao found that these barriers not only hinder the learning process but also contribute to increased levels of stress and frustration among students (Hasan & Bao, 2020). Additionally, many students lack a conducive learning environment at home, affecting their concentration and overall academic performance. As noted by Adnan and Anwar, interaction with peers and instructors is crucial in nursing education for sharing knowledge and support. The shift to online learning has reduced opportunities for meaningful interaction (Adnan & Anwar, 2020).

Similarly, the psychological well-being of the students from the Faculty of Nursing at Universitas Padjadjaran is also categorized as low. Nursing students are at risk of experiencing mental well-being issues (Kowal et al., 2020). Nursing students reported significant increases in stress and anxiety when forced to adopt online learning due to the lack of face-to-face interaction with peers and instructors. The social isolation inherent in online learning can lead to feelings of loneliness, which is a significant risk factor for decreased psychological well-being (Majrashi, Khalil, Nagshabandi, & Majrashi, 2021; Savitsky, Findling, Ereli, & Hendel, 2020). Students in these environments may also struggle with feelings of disconnection, which is known to affect motivation and optimism (Chu & Li, 2022).

The predominance of low optimism and psychological well-being among nursing students may also be associated with the prolonged adaptation to online learning environments following the COVID-19 pandemic. Nursing education inherently requires intensive interpersonal interaction, hands-on clinical practice, and direct supervision, all of which were limited during online learning. Reduced opportunities for social connectedness and experiential learning may have contributed to uncertainty about academic competence and future professional readiness. In addition, continuous exposure to academic workload, screen fatigue, limited peer interaction, and concerns about clinical skill acquisition may have negatively influenced students' expectations about the future and reduced

their overall psychological well-being. These conditions potentially weakened students' sense of purpose, motivation, and emotional resilience, thereby contributing to the dominance of low optimism and well-being observed in this study.

Unlike earlier pandemic-focused studies that emphasized emergency remote learning conditions, the present study examines the ongoing psychological impact of prolonged online and hybrid learning in the post-pandemic era, where students are still required to adapt to flexible yet demanding educational environments. These findings suggest that the psychological consequences of online learning may persist beyond the pandemic itself, particularly among nursing students who require intensive practical and interpersonal learning experiences. Therefore, the current post-pandemic educational context highlights the importance of strengthening psychological support systems, resilience-building programs, and student engagement strategies to sustain nursing students' optimism and psychological well-being during ongoing educational transitions.

The analysis also provided insights into students' psychological well-being across individual dimensions. Nursing students have high levels of autonomy, environmental mastery, and self-acceptance. Recent studies emphasize the importance of autonomy for student psychological well-being. Students who feel autonomous are more likely to engage in learning activities for personal growth rather than external pressures. Students who perceive their learning environment as autonomy-supportive report higher levels of well-being and academic performance (Vansteenkiste, Ryan, & Soenens, 2020).

Environmental mastery, another component of psychological well-being, refers to an individual's ability to manage and control complex environments to suit personal needs and effectively use opportunities. For nursing students, this involved adapting to digital platforms, managing time and resources effectively, and overcoming barriers to practical learning. When students feel in control of their learning environment, they experience reduced stress and higher levels of satisfaction with their educational experience. Browning et al. noted that students with better time management and digital literacy skills reported higher psychological well-being during the pandemic (Browning et al., 2021). Effective use of these tools facilitated a smoother transition and minimized disruption from the sudden shift to remote learning (Van Nuland, Mandzuk, Tucker Petrick, & Cooper, 2020).

Self-acceptance involves a positive evaluation of oneself, including acknowledgment and acceptance of one's strengths and weaknesses. For nursing students, self-acceptance is critical as it influences their ability to adapt to the demands of online learning and the stress associated with the pandemic. Self-acceptance is one of the six dimensions of psychological well-being (Ryff, 1995). It is particularly relevant in nursing education, where students often face high academic pressures and self-imposed expectations. Positive self-acceptance helps students manage these pressures more effectively. Studies show that higher levels of self-acceptance are associated with better psychological outcomes. During the pandemic, nursing students encountered numerous challenges, including disruptions to clinical placements and the need to adapt to new learning technologies. Nursing students reported increased stress and anxiety due to these disruptions (Labrague & De los Santos, 2020). However, those with higher levels of self-acceptance were better equipped to handle these stressors, maintaining a more positive outlook on their educational experience. Factors such as personal resilience, social support, and a sense of competence are crucial in fostering self-acceptance.

Zessin et al. suggest that interventions aimed at increasing self-compassion can also enhance self-acceptance (Zessin, Dickhäuser, & Garbade, 2015).

In contrast, the dimensions of personal growth, positive relationships with others, and purpose in life are low. Several studies found that the transition to online learning significantly disrupted student opportunities for personal growth (Browning et al., 2021; Cao et al., 2020; Kuhfeld et al., 2020). The uncertainty and stress further hampered personal growth. Students facing anxiety and stress are less likely to pursue new challenges and opportunities for self-improvement (Son, Hegde, Smith, Wang, & Sasangohar, 2020). The lack of opportunities for self-improvement and achievement exacerbated feelings of frustration and helplessness. The online learning process requires students to deliver lectures via various video conferencing platforms, leading to reduced social interaction and weaker positive relationships with others (Nastiti & Hayati, 2020). Furthermore, regarding the purpose in life indicator, the majority of students fall into the low category, as they tend not to have yet found goals and directions in their lives, lack clear objectives, cannot find meaning in current conditions, and have not yet determined future decisions (Ismuniar & Ardiwinata, 2021).

The analysis indicates a positive relationship between optimism and psychological well-being among students engaged in online learning at the Faculty of Nursing, Universitas Padjadjaran. Several studies found a significant relationship between optimism and psychological well-being (Sabouripour et al., 2021; Shah & Deshpande, 2022). Optimism is associated with various positive psychological outcomes, including better stress management, increased resilience, and overall higher life satisfaction. Optimistic individuals tend to use more adaptive coping strategies, which can enhance their psychological well-being. In nursing education, optimism may help students navigate the unique challenges posed by online learning. Optimistic nursing students are likely to maintain a positive outlook, even amidst the uncertainties and challenges of online learning. This positive outlook can buffer against stress and promote better mental health outcomes. For example, nursing students with higher optimism reported lower stress and anxiety during the pandemic (Lai et al., 2020). Optimistic students are more likely to engage in proactive coping strategies, such as seeking social support and maintaining a balanced routine, which contributes to their psychological well-being.

Conclusion

The study conducted among 400 active undergraduate students at the Faculty of Nursing, Padjadjaran University, yielded a significant result ($p<0.001$). Therefore, it can be stated that there is a significant relationship between optimism and psychological well-being in students engaged in online learning at the Faculty of Nursing, Universitas Padjadjaran. These findings suggest that optimism serves as an important psychological resource, supporting students' ability to cope with academic stress and adapt to online learning demands. Therefore, nursing education institutions should not only focus on academic achievement but also prioritize strategies that promote students' psychological well-being. Practical implications include strengthening academic counseling services, providing psychological support programs, enhancing peer-support systems, and developing interventions to foster optimism, resilience, and adaptive coping skills among students. In addition, educators should consider creating more interactive and supportive online learning environments to reduce feelings of isolation and improve student engagement. Further research is recommended to

explore intervention-based approaches and additional factors influencing psychological well-being among nursing students in both online and hybrid learning settings.

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