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Impact of the COVID-19 Pandemic on Motivation Levels Among Nursing Students at the College of Nursing, University of Mosul, Iraq

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ABSTRACT

Aims: The objective of this study was to investigate how the COVID-19 pandemic has influenced the motivation levels of nursing students. **Design:** A descriptive study design was implemented with nursing students enrolled at the College of Nursing, University of Mosul, Iraq. **Methods:** The study included a sample of 260 students. Data collection was carried out using personal information forms and Motivation Sources and Problems Scale. An online survey method was employed to collect data between May 1st and May 31st, 2020. The collected data were analyzed using various statistical measures, including frequency, percentage, mean, standard deviation, student *t*-test, and ANOVA test, performed with the SPSS 25.0 program. **Results:** It was found that 79.1% (n = 125) of the students were positively affected and 52.5% (n = 83) were negatively affected. The intrinsic motivation scores of the students were 43.55±8.71, extrinsic motivation scores were 21.36±3.71, negative motivation scores were 26.91±5.67, and total motivation scores were found to be 92.15±12.77. **Conclusions:** The COVID-19 pandemic has severely affected the students' level of motivation. A good strategic plan and a comparative study between distance education and face-to-face education are recommended to increase the level of motivation among nursing students.

Keywords: COVID-19; Intrinsic; Extrinsic; Nursing; Motivation

INTRODUCTION

In recent years, a number of factors have had a significant impact on nursing students' motivation levels (Mccain *et al*., 2022; Younis, 2023; Ibrahim *et al*., 2023; Khadyer & Ahmed, 2023; Saeed & Al-Jubouri, 2023). The abrupt transition to remote learning and potential complications associated with clinical placements have amplified stress and anxiety among students (Idris *et al.,* 2021). Working in high-pressure, fast-paced environments, such as hospitals, can also contribute to student demotivation (Kaku *et al.,* 2022). Mental health is another significant factor affecting motivation levels in nursing students (Son *et al*., 2020). It is also noteworthy to mention that feelings of isolation and uncertainty can lead to hopelessness and helplessness, further hindering student motivation and engagement in their studies (Michel *et al*., 2021; Masha'al *et al*., 2020; Noori *et al*., 2023). The world continues to grapple with the significant aftermath of the COVID-19 pandemic (Inovasanti *et al*., 2023).

The significance of studying the impact of COVID-19 on the motivation levels of nursing students is multifaceted. Firstly, understanding the extent to which the pandemic has affected nursing students' motivation can help educators and administrators develop strategies to support and engage students during this challenging time. It may also inform the development of policies and procedures to ensure that students are able to complete their education despite the challenges posed by the pandemic. Secondly, studying the impact of COVID-19 on nursing students' motivation can provide insight into the broader effects of the pandemic on the healthcare workforce. The nursing profession is essential to the functioning of the healthcare system and ensuring that students are motivated and engaged in their education is crucial to ensuring that the future workforce is well-prepared to meet the needs of patients. Thirdly, this study can help to understand the mental health of nursing

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students during the pandemic. It will provide insight into the psychological effects of the pandemic on this group of people, which can inform the development of mental health support and resources for nursing students. The COVID-19 pandemic and its associated changes imposed psychological burdens on nursing students. Nursing instructors balance between selecting appropriate teaching methods and providing support for their students' mental well-being (Kishore, Kunjukunju, & Yusof, 2022). Even if COVID-19 is no longer a pandemic, the lessons learned from this global health crisis can inform future preparedness efforts for healthcare professionals. Not all nurses' job performance is negatively affected by psychological impacts, often because they have effective coping skills (Priyantini, Irawandi, & Poddar, 2022). Understanding the impact of the pandemic on nursing students' motivation can contribute to refining strategies for preparing and supporting future nursing cohorts during challenging times. The objective of this study was to investigate the influence of the COVID-19 pandemic on students' motivation levels.

METHODOLOGY

Study Design and Participants

In this study, a descriptive research design was employed to gather information about nursing students enrolled at the College of Nursing, University of Mosul, Iraq. The primary objective of this research design is to describe and document the characteristics, attitudes, or behaviors of the population under investigation without altering or manipulating any variables. In this case, the entire population of nursing students at the college (360 students) was invited to participate, and 260 students chose to take part in the study. The fact that all students who participated are from the same college indicates a high degree of internal representativeness. It can be assumed that the findings are likely representative of the characteristics and attitudes of nursing students within this specific college.

Data Collection

Data collection was conducted through an online survey administered between May 1st and May 31st, 2020. The research team developed a personal information form based on relevant literature, which included questions regarding students' gender, age, grade, and various factors related to their education. The Motivation Sources and Problems Scale, consisting of 24 questions, was used to assess students' motivation levels. This scale, developed by Acat and Köşgeroğlu, in 2006, comprises three sub-dimensions: "Intrinsic Motivation," "External Motivation," and "Negative Motivation." Participants provided their responses using a 5-point Likert scale.

Scoring and Analysis

The scale items related to intrinsic and extrinsic motivation were scored on a scale of 1 to 5, with "I strongly disagree" assigned a score of 1 and "I strongly agree" assigned a score of 5. For the items related to negative motivation, the scoring was reversed, with "I strongly disagree" receiving a score of 5 and "I strongly agree" receiving a score of 1. The scale yielded a minimum score of 24 and a maximum score of 120, with the higher scores indicating higher levels of motivation. Acat & Köşgeroğlu (2006), reported the internal consistency coefficient (Cronbach's alpha) for the scale as being 0.82, but this study found it to be 0.86. The data were analyzed using the SPSS 25.0 program, including descriptive tests such as frequency, percentage, mean, and standard deviation. Content analysis was performed to categorize students' statements regarding their motivation. Student's t-test and ANOVA were employed to explore motivational differences based on students' sociodemographic characteristics.

Ethical Consideration

The study obtained permission from the Ethics Committee of Ninevah University, Iraq with the approval No. CCRME-Med-20-36 on the 18th of October 2022.

RESULTS

It was observed that the mean age of the students was 20.44±2.60 years. Among all, 47.7 % (n = 124) were female, and 52.3 % (n = 136) were male. It was determined that 77.3% (n = 201) had chosen the profession willingly, and 22.7% (n = 59) of students didn't choose the profession willingly. It was found that 38.1% (n = 99) of the students were positively affected and 61.9% (n = 161) were negatively affected (p>0.05) (Table 1).

Table 1: Findings Regarding the Sociodemographic Characteristics of the Students (n:260)

		n	%
Gender	**Female**	195	75
	Male	65	25
Grade	1	98	37.6
	2	63	24.2
	3	44	16.9
	4	55	21.2
Willingly Choosing a Profession	Yes	201	77.3
	No	59	22.7
Influencing Motivation	Yes	211	81.2
	No	49	18.8
Motivational Aspect	Positive	99	38.1
	Negative	161	61.9

The higher percentage of students reporting a negative impact suggests potential challenges or issues within the educational environment or program being studied. These challenges could relate to teaching methods, curriculum design, student support, or other factors that need attention and improvement. The intrinsic motivation scores of the students were 43.55±8.71, extrinsic motivation scores were 21.36±3.71, negative motivation scores were 26.91±5.67, and total motivation scores were found to be 92.15±12.77 (Table 2).

Table 2: Distribution of Students' Scores on Motivation Resources and Problems Scale and its Sub-Dimensions

Study Dimensions	Min-Max	Mean ±SD
Intrinsic Motivation	11-55	43.55±8.71
Extrinsic motivation	5-29	21.36±3.71
Negative Motivation	14-40	26.91±5.67
Total Motivation	57-120	92.15±12.77
Min-Max: Minimum- Maximum, Mean: Mean, SD: Standard Deviation		

It was observed that intrinsic, extrinsic, and negative motivation levels did not differ according to the variables of choosing the profession willingly and influencing motivation. It was also observed that students' intrinsic motivation differs according to gender, extrinsic motivation differs according to grade and motivation direction, and negative motivation differs according to age, class, and motivation direction (p>0.05) (Table 4).

Table 3: Distribution of the Scores Obtained from the Motivation Sources and Problems Scale and its Sub-Dimensions According to the Sociodemographic Characteristics of the Students

Variables		n	Intrinsic Motivation Mean ±SD	Extrinsic Motivation Mean±SD	Negative Mean ±SD	Total Mean ±SD
Gender	Female	195	44.91±38.73	21.91±3.13	26.80±5.42	93.62±12.00
	Male	65	38.73±11.35	19.38±4.89	27.11±6.56	86.76±14.35
	t		5.231	3.001	3.589	0.644
	p		0.024*	0.085	0.060	0.423
Age	18-20	149	44.10±8.56	21.73±3.51	25.59±5.08	92.03±12.25
	21-23	96	43.07±9.01	21.03±3.87	28.18±5.92	92.29±13.31
	24 and above	15	41.00±8.10	19.71±4.34	31.57±5.94	92.28±16.12
	F		0.566	1.392	6.775	0.008
	p		0.569	0.252	0.002**	0.992
Grade	1	98	43.49±8.78	21.10±3.79	26.75±5.23	91.35±12.67
	2	63	41.23±11.33	20.00±4.93	24.80±5.16	87.76±14.16
	3	44	46.38±6.57	23.03±2.16	26.92±6.54	96.34±12.80
	4	55	43.55±6.47	21.89±238	29.48±5.71	94.93±10.06
	F		1.646	3.599	3.554	2.753
	p		0.181	0.015*	0.016*	0.045

Table 4: Distribution of Students' Scores from the Motivation Sources and Problem Scales and its Sub-Dimensions According to their Sociodemographic Characteristics

		n	Intrinsic Motivation Mean ±SD	Extrinsic Motivation Mean±SD	Negative Mean ±SD	Total Mean ±SD
Willingly Choosing a Profession	Yes	(201)	(49.1±0.29)	(20.54±2.15)	(26.33±4.02)	(95.72±9.50)
	No	(59)	(37.56±9.19)	(22.10±2.64)	(24.87±4.65)	84.32±1.89)
	t		(0.948)	(1.051)	(0.649)	(0.341)
	P		(0.724)	(0.794)	(0.374)	(0.381)
Influencing Motivation	Yes	(211)	(43.56±8.38)	(21.16±3.88)	(27.19±5.77)	(93.6±37.63)
	No	(49)	(43.48±10.00)	(22.09±2.90)	(25.84±523)	(91.42±13.81)
	t		(1.643)	(0.514)	(0.158)	(0.440)
	P		(0.202)	(0.475)	(0.691)	(0.508)
Motivation Aspect* **	Positive	(99)	(43.89±9.28)	(21.62±2.97)	(27.28±6.02)	(93.00±12.19)
	Negative	(112)	(43.68±8.68)	(20.66±4.87)	(27.10±4.32)	(92.60±13.58)
	t		(0.014)	(8.412)	(5.913)	(0.555)
	P		(0.906)	(0.004**)	(0.017*)	(0.458)

t: Student's t-test, *F*: Anova, *p<0.05, **p<0.01, Mean: Mean, SD: Standard Deviation, *** Obtained by categorizing the students' self-reports.

DISCUSSION

The present study was planned to determine the impact of the COVID-19 pandemic on the motivation level of nursing students. The findings were discussed under different dimensions and three sub-dimensions, including intrinsic, extrinsic, and negative levels of motivation. It is observed from the present study that the pandemic has negatively affected the motivational level of students by practicing distance education and staying away from the laboratory and clinical environment. It highlights the need for institutions to provide robust mental health support services for students engaged in online learning. Feelings of isolation and disconnection can adversely affect motivation, so addressing these issues is crucial. Teachers and instructors may need additional training and professional development opportunities to effectively transition from traditional classroom teaching to online instruction. This can help deliver more engaging and motivating online courses. Students prefer formal education provided the conditions are favorable post-pandemic (Yilmaz Ince *et al*., 2020).

The possibility that the negative impact observed in the study is a reflection of the broader trends and challenges in education due to the pandemic, which were observed in other studies as well, Laboratory practices and clinical experiences are of great importance in the practical part of nursing education. It is also observed that theoretical knowledge without its practical implementation is one of the main reasons for low motivation. In contrast to this study, Nielsen and Dieperink *et al*. (2020) reported that during the COVID-19 pandemic, nurses were highly motivated to care for critical patients and to acquire new skills whenever necessary.

Though there were students whose motivation was positive towards their education, which may be due to their understanding of the importance and well-accepted social image of their profession (Schaufeli & Peeters, 2000), It is an expected result that the motivation level of the students who have completed their studies and are working has increased during the pandemic. Students presently studying during the Corona pandemic did not find a suitable environment to convert their basic knowledge into professional skills; this may be the reason for their decreased level of motivation. These results were supported another stud), which reported that 37.9% of students' motivation level was moderate and 5.2% was low during the COVID-19 pandemic (Lee *et al*., 2020). When the score of the students on the motivation sources and problems scale was evaluated, it was seen that their intrinsic, extrinsic, and total motivation levels were high, and their negative motivation levels were found to be moderate. It was supported by another findings that reported that students' intrinsic and extrinsic motivation was high, while their negative motivation was moderate (Yardimci *et al*., 2017).

So, the reason for the high average score of intrinsic and extrinsic motivation level can again be correlated with the importance of the nursing profession during the COVID-19 pandemic (Legault, 2020; Noels *et al*., 1999; Tarquinio *et al*., 2020). It is also observed that the high level of intrinsic motivation score, as in similar studies, is due to the positive thoughts of the students about the profession and their interest in applying knowledge and skills to professional practices during the COVID-19 pandemic. The study also reveals that the scores of intrinsic and extrinsic motivations of third-grade students were higher than those of other grades. In another study, it was found that the extrinsic and intrinsic motivation mean scores of the 4th grade students were higher than those of the 1st grade, and the mean negative motivation scores of the 1st grade students were higher than those of the 4th grade students (Noels *et al*., 1999). The low score of intrinsic and external motivation among 1st grade students is due to the transition from the physical classroom to the digital education system. It can also be said that as basic nursing skills and environment adaptation are taught to 1st grade students, which they don't find interesting through the online education system, this may be one of the reasons for their lack of motivation. The sources of extrinsic motivation are important in improving nursing students' motivation, and strategies for improving their motivation should be adopted (Chen *et al*., 2019).

It is also important to mention the contrast, which found that the mean score of extrinsic motivation of the 3rd grade students was significantly lower than that of the 1st and 2nd grades (Alharbi *et al*., 2019). It is evident from the above discussion that the motivation level of the students has been negatively affected during the COVID-19 pandemic, and for continuing the teaching-learning process with distance education, it is important to make the necessary arrangements and initiatives to improve the motivation positively (Alharbi *et al*., 2019).

CONCLUSION

Based on the findings of the present study, it can be concluded that distance education during the Covid-19 pandemic had a negative impact on students' motivation. However, an increase in motivation was observed when students exhibited a higher level of respect for the nursing profession. Considering these results, it is

recommended to conduct further research with a larger sample size to gain a more comprehensive understanding of the influence of the Covid-19 pandemic on students' motivation levels. Additionally, it is crucial to explore various motivating resources that can assist students in maintaining their motivation during the challenging circumstances of the pandemic. By conducting such studies and identifying effective strategies to boost motivation, educational institutions can better support students in achieving their academic goals and promoting their overall well-being during times of crisis.

Limitations of the Study

The article's limitation lies in its failure to investigate the motivation level of nursing students in the current non-pandemic scenario, leading to an incomplete understanding of the factors influencing nursing education and the nursing profession. Motivation plays a pivotal role in shaping students' attitudes and commitment to their studies and future careers, and neglecting this aspect hinders the comprehensiveness and applicability of the study. Additionally, the absence of contextual understanding limits the relevance of the study's recommendations to nursing schools and policymakers.

Furthermore, the long-term impact of the pandemic on nursing students' motivation and mental well-being may persist, and the article's oversight may lead to overlooking the need for continued support to address post-pandemic challenges. Understanding the current motivation levels of nursing students is crucial for assessing the healthcare workforce's readiness for future crises and designing effective educational strategies and support systems. Without considering students' motivation, the article's recommendations may not fully address the nuanced needs of the nursing community, hindering the identification of areas for improvement and best practices. To address this limitation, future research should explore nursing students' motivation post-pandemic, providing valuable insights into nursing education and healthcare workforce preparedness.

Conflict of Interest

The authors declare that they have no competing interests.

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