



Nursing Students And Their Parents' Insight Towards Clinical Experience During Covid-19 Pandemic – A State-Wide Cross-Sectional Study

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ABSTRACT

COVID-19 pandemic continues to have various impacts on our societal life not only the healthcare sector. Other than causing a general sense of insecurity and burden, this unexpected situation created unforeseen confusion and stress among nursing students and their parents.

Aim of the study was nursing students' and parents' perception on clinical experience during the COVID-19 pandemic – a state-wide cross-sectional study.

Objectives: To assess students and parents' perception on clinical experience during the COVID-19 pandemic and to identify correlation of nursing students' and parents' perception.

Methods: A quantitative approach was used with descriptive survey design; total of 500 participants were included; which 250 were nursing student participants and 250 their parents from the state of Maharashtra. Cluster sampling method was adopted, and data collection was done through online Google forms.

Results: The finding of the study revealed majority i.e., 50.8% nursing students had cared for COVID-19 patients; 67.6% of students had attended sessions on COVID-19; 50.4% had received training; 56.4% were posted in clinical area during the pandemic. 63.2% students reported to have been provided COVID-19 helpline by their institutes for their psychological support. Students' and parents' perception revealed that pandemic influenced self-care behaviour related to maintaining good hand hygiene practices. Pandemic influenced self-care behaviour related to more consciousness about preventing nosocomial infection. The lowest mean was for 'inadequate support from parents and guardians and Perception on risk regarding spread of COVID-19 infection. There was no correlation within the variables of nursing students' perceptions except a strong negative correlation between knowledge of COVID – 19 and interaction with health team members ($p=0.048$) as well as self-care in relation to prevention of COVID – 19 and psychological wellbeing ($p=0.035$). The findings of the current study suggest that there was no correlation within the variables of parents of nursing students' perceptions except a strong negative correlation between Self-care practices of child in relation to prevention of COVID infection and financial burden ($p=0.026$).

Conclusion: The study highlighted nursing students' and parents' perceptions of COVID-19. It emphasized the importance of maintaining good coping skills and clinical preparation programs to prepare students for patient treatment and interactions.

Keywords: COVID-19, pandemic, student nurses, clinical experience, parents, perception, cross-sectional

1. Introduction

1.1 Background: The start of the disease by Coronavirus in the year 2019 had placed the whole world at stake. It started from the city of Wuhan in Hubei Province of China when there was an increasing number of cases

found to be having symptoms of pneumonia.¹ However, the new virus received its nomenclature in December 2019 as 2019 novel coronavirus and later was named officially as SARS-COV-2 and identified as the novel virus by the International Committee on taxonomy of viruses.² The review confirms that all the initiator cases that spread the disease in India, Finland as well as Philippines had a travelled to Wuhan City which then spread the COVID cases.³ There was stringent diagnostic measures implemented to aim at surveillance of cases, their early detection and to keep a track on the spread of COVID-19 cases after an alarming rise in number of the cases all over.³

The pandemic has affected all levels of the education system.⁴ Worldwide it led to temporary or permanent closure of educational institutes that affected a huge number of student population.⁵ It has also resulted in the break in the continuity of the curricular and extracurricular activities as well which was required to prevent the transmission of the virus. But these measures had an impact on various spheres of economy, societal and educational implications.^{6,7}

Clinical experience is an inseparable component of nursing education that is for acquiring professional competencies among the nursing students. Thus, practical skills are mandatory for development of clinical skills among students. Online education would not give justice to this practical component and would serve as a matter of stress for the students.⁸ The effect on the student's education has caused numerous unanticipated challenges for many parents and families, and these unending demands have contributed to higher stress for parents as well. This aspect needed to be highlighted and addressed.

Thus, this study was conducted with the objectives to assess nursing students' and parents' perception on clinical experience during the COVID-19 pandemic and to identify correlation of nursing students' and parents' perceptions.

2. Materials and Methods:

2.1 Research Approach, Study design, population, area and eligibility criteria

The researchers adopted a quantitative approach with descriptive survey design. The participants included students undergoing undergraduate nursing program and their parents. The inclusion criteria followed was students studying in third year and fourth year B.Sc. Nursing program and their parents who understood English, Hindi or Marathi language.

2.2 Sample size and sampling method

A total of 500 participants i.e., 250 nursing student participants and 250 parents were selected by geographical cluster sampling method from six divisions across the state of Maharashtra after a survey, cities were randomly selected and then nursing colleges from these selected cities were included in the study.

2.3 Data collection tool

The data from the students and parents was collected by a questionnaire for demographic characteristics; COVID-19 specific questions and perception questionnaire regarding aspects of clinical experience during COVID -19 pandemic with statements to be rated on a 5-point Likert scale. The students' perception Likert scale had statements under five domains viz., knowledge of COVID-19, spread of COVID-19 infection, efficiency in clinical skills, interaction with health team members, role of college regarding clinical posting during COVID-19 pandemic, perception regarding self-care in relation to prevention and psychological support. Three domains were in parents' perception questionnaire viz., spread of COVID-19 infection, role of college regarding clinical posting during COVID-19 pandemic, self-care practices of child in relation to prevention of COVID infection and financial burden.

2.4 Validation and reliability of the tool

The demographic data questionnaire and the perception questionnaire with 22 and 10 statements was used for assessing students and parents' perception regarding aspects of clinical experience during COVID -19 pandemic after validation from the experts. The reliability of the questionnaires by using Cronbach's alpha was found to be 0.890 and 0.833.

2.5 Data quality assurance

The data was collected by the researchers by the validated questionnaire. It was pretested by a pilot study with 10% of the total population prior to main study data collection. The main study was conducted after ensuring the feasibility of the process with better clarity on the responses of the participants.

2.6 Data Analysis and interpretation

The data collected was coded and analysed using SPSS version 22 according to objectives of study. Data was analysed using descriptive and inferential statistics and according to objectives and hypothesis of the study.

2.7 Ethical considerations:

The Ethical Committee clearance was obtained from the Institutional Ethics Committee. Further, permission was obtained for data collection was obtained from the Authorities / Principals of the nursing colleges. Informed consent was duly taken from the participants after giving information about the study and were assured of confidentiality.

3. Results

3.1 Demographic characteristics of the participants

Table 1 Demographic characteristics of nursing students:

Variable	Category	Frequency	Percentage (%)
Age in years	17-18	3	1.2
	19-20	49	19.6
	21-22	180	72.0
	>22	18	7.2
Gender	Male	47	18.8
	Female	203	81.2
Studying class	Third Year	116	46.4
	Fourth Year	134	53.6

Table 2 COVID – specific information in nursing students:

Variable	Category	Frequency	Percentage (%)
Cared for COVID-19 Patient	Yes	123	49.2
	No	127	50.8
Attended webinar/session /Conference on COVID -19	Yes	169	67.6
	No	81	32.4
Received any training on care of patient with COVID-19	Yes	126	50.4
	No	124	49.6
Was posted in clinical area during COVID-19 pandemic	Yes	109	43.6
	No	141	56.4
Whether College provided COVID-19 Help lines for psychological support	Yes	158	63.2
	No	92	36.8

Table 3 Demographic characteristics of parents of nursing students:

Variable	Category	Frequency	Percentage (%)
Age in years	35-40	35	14.0
	41-46	97	38.8
	47-52	71	28.4
	53-58	47	18.8
Gender	Male	120	48.0
	Female	130	52.0
Education	Primary	30	12.0
	Secondary	65	26.0
	Higher secondary	71	28.4
	Diploma	22	8.8
	Degree	48	19.2
Monthly Family Income	Post-graduation	14	5.6
	< = 6174	15	6.0
In Rs.	>=123,322	26	10.4
	18,497 - 30,830	60	24.0
	30,831 - 46,128	31	12.4
	46129 - 61,662	24	9.6
	6,175 - 18,496	57	22.8
	61,663 -123,321	37	14.8

Table 4 COVID – specific information of parents of nursing students:

Variable	Category	Frequency	Percentage (%)
Willingness to send child for clinical posting during COVID-19 wave	No	62	24.8
	Yes	188	75.2
Information about COVID-19	No	55	22.0
	Yes	195	78.0
Source of information	Arogya-setu application	1	0.5
	From their own child	9	4.6
	Media	185	94.9

3.2 Perceptions on clinical experience during the COVID-19 pandemic

Table 5 Nursing students' perceptions on clinical experience during the COVID-19 pandemic

Statements	Mean	SD
Domain: Information of COVID-19		
Information regarding transmission of COVID-19 infection prior to clinical posting	3.18	0.943
Information regarding management of COVID-19 infection prior to clinical posting	3.06	0.947
Information regarding prevention of COVID-19 infection prior to clinical posting	3.15	0.901
Domain: Perception regarding spread of COVID-19 infection		
Risk to get infected with Covid-19 in clinical premises	3.12	0.899
Chances for spread of infection to patients while giving care	3.13	0.842
Chances for spread of infection to co-students while taking care of patients	3.18	0.817
Risk to transmit COVID-19 infection to my family members	3.18	0.879
Domain: Perception regarding efficiency in clinical skills		
Confidence in donning and doffing of personal protective equipment (PPE) properly	3.10	0.826
Confidence in taking adequate precautions to prevent droplet infection	3.14	0.795
Confidence in identifying signs of oxygen deprivation correctly	3.10	0.815
Confidence in administering different forms of oxygen	3.11	0.819
Ability to observe and monitor mechanically ventilated patient	3.14	0.809
Domain: Perception regarding interaction with health team members		
Interaction was affected with Staff nurses	2.87	0.866
Interaction was affected with - Student nurses	2.84	0.883
Interaction was affected with - Other non-nursing staff	2.79	0.894
Domain: Perception on role of college regarding clinical posting during COVID-19 Pandemic		
College ensured adequate safety advises regarding - Prevention from getting exposed to COVID -19 infection	3.03	0.871
College provided information regarding following COVID-19 precautions during patient care	3.16	0.825
College provided information regarding following all COVID-19 protocols in clinical placement	3.22	0.775
Domain: Perception of self-care in relation to prevention of COVID-19		
Pandemic influenced self-care behaviour related to maintaining good hand hygiene practices as compared to pre- covid Clinical placement	3.30	0.818
Pandemic influenced self-care behaviour related to having meals on time during clinical posting	3.18	0.797
Pandemic influenced self-care behaviour related to More consciousness about preventing nosocomial infection	3.28	0.821
Domain: Perception regarding psychological support		
College provided adequate counselling before clinical posting	2.95	0.915
Inadequate support from peers	2.52	1.023
Inadequate support from parents/guardians	2.32	1.101

The highest mean (mean=3.30, sd=0.818) for students' perception was regarding 'Pandemic influenced self-care behaviour related to maintaining good hand hygiene practices as compared to pre- covid Clinical placement' followed by 'Pandemic influenced self-care behaviour related to more consciousness about preventing nosocomial infection' (mean=3.28; sd=0.821). The lowest mean was for 'inadequate support from parents and guardians' (mean=2.32 & sd 1.101)

Table 6 Nursing students parents' perceptions on clinical experience during the COVID-19 pandemic

Statements	Mean	SD
Domain: Perception on risk regarding spread of COVID-19 infection		
Risk for their child to get infected with Covid-19 in clinical premises	2.21	1.004
Chances of spread of infection from patients to their child while giving care to them	2.98	0.909
Risk to transmit COVID-19 infection to family members	3.01	0.914
Domain: Perception on role of college regarding clinical posting during COVID-19 Pandemic		
College ensured adequate instruction prior to clinical posting during Covid-19 related to prevention from getting exposed to infection	3.01	0.845
College ensured adequate instruction prior to clinical posting during Covid-19 related to following COVID-19 precautions during patient care	3.06	0.844
College provided adequate instruction regarding following all COVID-19 protocols in clinical placement	3.05	0.849
Domain: Perception of self-care practices of child		
Pandemic influenced child's self-care behaviour related to maintaining good hand hygiene practices as compared to pre- covid Clinical placement	3.10	0.839
Pandemic influenced child's self-care behaviour related to having meals on time during clinical posting	3.09	0.955
Pandemic influenced child's self-care behaviour related to more consciousness about preventing nosocomial infection	3.06	0.853
Domain: Perception regarding financial burden		
Financial problems related to child's fee during pandemic	2.98	0.909
Worries related to finances for travelling of my child for clinical posting everyday	2.95	0.919

The highest mean (mean=3.10, sd=0.839) for parents' perception was regarding 'Pandemic influenced child's self-care behaviour related to maintaining good hand hygiene practices as compared to pre- covid Clinical placement' followed by 'Pandemic influenced child's self-care behaviour related to having meals on time during clinical posting' (mean=3.09; sd=0.955). The lowest mean was for the domain of 'Perception on risk regarding spread of COVID-19 infection' (mean=2.21 & sd 1.004).

3.3 Correlation of perceptions on clinical experience during the COVID-19 pandemic

Table 7 Correlation of nursing students' perceptions on clinical experience during the COVID-19 pandemic

		Knowledge of COVID - 19	Spread of COVID-19 infection	Efficiency in clinical skills	Interaction with health team members	Role of your college regarding clinical posting	Self-care in relation to prevention	Psychological wellbeing
Knowledge of COVID - 19	Pearson Correlation	1	-0.028	-0.016	-.125*	-0.032	-0.012	0.039
	Sig. (2-tailed)		0.664	0.795	0.048	0.618	0.852	0.538
Spread of COVID-19 infection	Pearson Correlation	-0.076	1	0.058	-0.118	-0.032	-0.012	0.053
	Sig. (2-tailed)	0.230		0.363	0.062	0.618	0.852	0.401
Efficiency in clinical skills	Pearson Correlation	-0.016	0.026	1	0.090	-0.002	0.041	0.090
	Sig. (2-tailed)	0.578	0.678		0.154	0.973	0.515	0.157
Interaction with health team members	Pearson Correlation	0.065	0.049	0.041	1	0.004	0.034	0.122
	Sig. (2-tailed)	0.305	0.436	0.518		0.953	0.591	0.055
Role of your college regarding clinical posting during COVID-19 Pandemic	Pearson Correlation	-0.064	-0.024	-0.013	0.041	1	0.059	0.091
	Sig. (2-tailed)	0.311	0.703	0.834	0.518		0.355	0.151
Self-care in relation to prevention	Pearson Correlation	-0.012	-0.065	-0.042	-0.048	-0.065	1	-0.133
	Sig. (2-tailed)	0.852	0.308	0.504	0.445	0.308		0.035
Psychological wellbeing	Pearson Correlation	0.068	0.005	0.109	0.047	0.102	0.109	1
	Sig. (2-tailed)	0.285	0.932	0.148	0.458	0.109	0.087	

* Correlation is significant at the 0.05 level (2-tailed)

As per table 7, there was no correlation within the variables of nursing students' perceptions except a strong negative correlation between knowledge of COVID – 19 and interaction with health team members (p=0.048) as well as self-care in relation to prevention of COVID – 19 and psychological wellbeing (p=0.035).

Table 8 Correlation of parents' perceptions on clinical experience during the COVID-19 pandemic

		Risk regarding spread of COVID-19 infection to my child	Role of College regarding clinical posting during COVID-19 Pandemic	Self-care practices of child in relation to prevention of COVID infection	Financial burden
Risk regarding spread of COVID-19 infection to my child	Pearson Correlation	1	- 0.024	-.133*	- 0.072
	Sig. (2-tailed)		0.703	0.035	0.259
Role of College regarding clinical posting during COVID-19 Pandemic	Pearson Correlation	-0.032	1	0.070	- 0.100
	Sig. (2-tailed)	0.618		0.267	0.115
Self-care practices of child in relation to prevention of COVID infection	Pearson Correlation	-0.082	0.025	1	-.140*
	Sig. (2-tailed)	0.196	0.693		0.026
Financial burden	Pearson Correlation	- 0.094	- 0.091	- 0.023	1
	Sig. (2-tailed)	0.139	0.152	0.718	

*Correlation is significant at the 0.05 level (2-tailed)

As per table 8, there was no correlation within the variables of parents of nursing students' perceptions except a strong negative correlation between Self-care practices of child in relation to prevention of COVID infection and financial burden ($p=0.026$).

4. Discussion

The findings of the study revealed that majority i.e., 72% of the nursing students were in the age of 21-22 years; 81.2% were females and 53.6% were from final year batch. Almost half (50.8%) of the students had cared for COVID-19 patients; 67.6% of students had attended sessions on COVID-19; 50.4% had received training on care of patient with COVID-19; 56.4% were posted in clinical area during the pandemic. 63.2% students reported to have been provided COVID-19 helpline by their institutes for their psychological support. A similar cross-sectional study was conducted to study nursing student's experiences during clinical placement during the COVID-19 Pandemic in selected nursing colleges of Belgium total 665 students participated most of the respondents were female ($n=597, 89.77\%$) with the age ranged from 18-56 years and majority of the students were in third year ($n=199, 29.92\%$)⁹.

With regard to nursing students' perceptions on clinical experience during the COVID-19 pandemic, findings of the present study revealed that the highest mean (mean=3.30, $sd=0.818$) for students' perception was regarding 'Pandemic influenced self-care behaviour related to maintaining good hand hygiene practices as compared to pre-covid Clinical placement' followed by 'Pandemic influenced self-care behaviour related to more consciousness about preventing nosocomial infection' (mean=3.28; $sd=0.821$). The lowest mean was for 'inadequate support from parents and guardians' (mean=2.32 & $sd 1.101$). Studies conducted on nursing students have demonstrated positive coping strategies by focusing on self-care and self-improvement. The measures included wearing PPE and maintaining a strong immune system. A study in Oman revealed that nursing students were more compliant with COVID prevention measures. It was also crucial to eat healthy, have fun, and manage stress. Financial stability was essential for maintaining a healthy immune system.¹⁰ Also, during the pandemic, fear and worry were common reactions among clinical practice participants. Studies have shown that students experience fear of infection, fear of transmission, and uncertainty. This is justified as healthcare workers face a high risk of acquiring COVID-19, with WHO reporting 115,500 deaths among health workers from January 2020 to May 2021.¹¹

The findings of Nursing students' parents' perceptions on clinical experience during the COVID-19 pandemic highlights the highest mean (mean=3.10, $sd=0.839$) for parents' perception was regarding 'Pandemic influenced child's self-care behaviour related to maintaining good hand hygiene practices as compared to pre-covid Clinical placement' followed by 'Pandemic influenced child's self-care behaviour related to having meals on time during clinical posting' (mean=3.09; $sd=0.955$). The lowest mean was for the domain of 'Perception on risk regarding spread of COVID-19 infection' (mean=2.21 & $sd 1.004$). The parents of nursing students also felt fear, but in the end, they allowed the students to do clinical exercises. The belief that infection is fate and that through health measures, personal protective equipment and maintaining immunity, COVID can be

prevented helps parents allow their children to exercise. However, intensive communication is also practiced keeping the child's condition under control. Parental approval and communication are seen as excellent support for students. Student mental health should focus on enabling students to perform at their best in clinical activities. Support from family, friends, teachers, and counselors is important to students' well-being. According to Levitt et al., teachers should provide intensive care and communication, correct teaching methods and reduce uncertainty through policies.¹²

The findings of correlation of nursing students' perceptions on clinical experience during the COVID-19 pandemic suggest that there was no correlation within the variables of nursing students' perceptions except a strong negative correlation between knowledge of COVID – 19 and interaction with health team members ($p=0.048$) as well as self-care in relation to prevention of COVID – 19 and psychological wellbeing ($p=0.035$). Sofia Fatima et al conducted a study on Perceptions of 16 senior full-time undergraduate nursing students on how the COVID-19 pandemic influenced their clinical practice in the Northwest Province, South Africa. Four major themes emerged: lack of preceptors, restrictions on COVID-19 wards, difficulties with online classes and tests, and poor communication. The study concluded that the pandemic influenced students' perceptions of clinical training, impacting their learning experiences and decisions to continue working as professional nurses. Another study by Fatemeh Ahmadi,¹ Hamidreza Shaker, Majid Eterafi, and Aziz Kamran assessed nursing students' perceptions of nursing role function in Ardabil Province, focusing on third and fourth-year students. Results showed significant gender differences in perceptions, particularly in supportive, professional-moral care, and professional-educational dimensions. Students with a mean score of 19-20 had higher overall scores. A positive correlation was observed between students' interest in nursing and their perceived ability with nursing role perception.¹³

The result of correlation of parents' perceptions on clinical experience during the COVID-19 pandemic revealed that there was no correlation within the variables of parents of nursing students' perceptions except a strong negative correlation between Self-care practices of child in relation to prevention of COVID infection and financial burden ($p=0.026$). The result of correlation of parents' perceptions on clinical experience during the COVID-19 in this regard it is found that the self-care practices followed by the child for the prevention of COVID-19 infection was not dependent on the aspect of financial burden as experienced by their parents during the pandemic ($p=0.026$). An Indian study involving 81 parents of nursing students on the impact of online education on parents of nursing students during the pandemic. It identified parents' concerns of missing close interaction with the teachers (40.7%); missing child's socialization to great extent (37%); difficulty to adapt to online learning (28.4%).¹⁴ However, no studies are available on parents' perception on clinical experience.

5. Conclusion

The findings identified in this research represent the circumstances of students engaging in clinical experience during the pandemic. The circumstances and transformations that transpired during this global health crisis offer fresh perspectives on the state of student practice post-pandemic, which is anticipated to persist. These emerging findings could serve as valuable input for educational institutions in shaping policies in the future, encompassing instructional approaches for competency attainment, COVID testing provisions, teacher-student engagements, and the necessary support for students during the pandemic. Subsequent research determines to discover suitable learning methodologies to adapt changes in the setting in clinical practice. Therefore, nursing institutes must prepare students for clinical placements and advanced healthcare demands by modifying teaching methods, focusing on physical and mental health, providing preventive measures and increasing soft skills, and fostering professional characteristics.

6. Conflict of interest

There are no conflicts of interest in this study.

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