

Research report

RESILIENCE AND EXPERIENCES OF NURSING STUDENTS DURING COVID-19 PANDEMIC: A MIXED METHOD STUDY

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ABSTRACT:

Background: COVID-19 resulted in uncertainties and a new normal, which had an impact on nursing education too. Therefore, the study aimed to assess the resilience and explore the experiences of nursing students during the pandemic. **Methods:** The study adopted a mixed methods design. In the quantitative phase, resilience was assessed using the Connor-Davidson Resilience scale among 477 nursing students. The data was collected through google forms. This was followed by a qualitative phase in which experiences and resilience were explored by conducting eleven In-depth Interviews and five Focus Group Discussions. Resilience was dichotomised into good and poor resilience based on the median score. Latent content analysis was adopted for qualitative analysis. **Results:** The mean age was 22.15 (Standard deviation [SD] - 4.42) years. The majority of the study participants were studying for BSc Nursing 297 (62.3%), 95 (19.9%) were studying for a three-year diploma nursing course, and 37 (7.8%) were studying for post-graduation in nursing. The mean resilience score was 71.20 (SD – 13.74, 95% CI = 69.97-72.44). Domicile and year of study showed significant association with resilience. Four major themes that emerged were psychological torment, experience related to COVID-19, experience related to teaching-learning activity and resilience. **Conclusion:** The present study revealed that the mean resilience score of nursing students was high. Educational strategies have to be developed focusing on the promotion of resilience among nursing students so that they can render quality nursing care even during the pandemic.

Key-words: Resilience, experience, nursing students, mixed method

INTRODUCTION

The COVID-19 pandemic has tested and challenged the healthcare systems worldwide, not even spared well-developed nations. Kerala is the largest producer of nurses in the world. Like any other healthcare stream, Nursing students have faced challenges in pursuing their education during the pandemic. Sudden closure of educational institutions, use of the online medium, change of evaluation system,

postponement of examination, fear of contracting illness and other changes in the context are the challenges faced by them. Nursing is a challenging and demanding profession; the students experience more stress than the non-nursing students.¹ Resilience is found to have an impact on learning experience, academic performance, course completion and, in the longer-term professional practice.²

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Comprehending the resilience and experiences of nursing students is necessary for helping the authorities to assign sufficient resources and re-orient university education for nursing students.

MATERIALS AND METHODS

The design was mixed methods – concurrent parallel design. The sampling technique was census sampling. The sample consisted of 520 eligible participants. All of them were given the questionnaire in google forms, shared in respective class-wise WhatsApp groups; 477 (92%) responded to the online survey. Information-rich participants were selected purposively for the qualitative strand.

Quantitative Strand

Data were collected with a questionnaire, which included sociodemographic data such as age, gender, course of study, income, domicile, type of family, year of study and birth order. Connor-Davidson Resilience Scale (CD-RISC) was used for the assessment of resilience. The CD-RISC scale comprises 25 items, each rated on a 5-point scale (0–4), with higher scores reflecting greater resilience. The total possible scores range from 0 to 100. The CD-RISC is a reliable ($r = 0.89$) and valid tool for measuring resilience.³ Malayalam version of the tool was available for which validity and reliability has been established by the developers of CD-RISC. The data was collected through google forms after getting the consent.

Qualitative Strand

The second phase was a qualitative one which aimed to explore the resilience and experience of nursing students during the COVID-19 pandemic. Quota sampling was used in which the participants from each course and batch were selected purposively. The tools were an In-depth Interview Guide (the primary method of data collection) and a Focus Group Discussion Guide. Eleven In-depth Interviews and five Focus Group Discussions were conducted, and the sample size was ascertained based on the principle of data saturation.

Procedure

Prior appointment for In-depth Interview and Focus Group Discussion was obtained from the participants. The purpose and significance of the study were explained to the participants in advance, and the interview was scheduled at their convenience. Telephonic consent was obtained from each interviewee. As face-to-face interviews were not feasible during the pandemic, data was gathered through telephonic interviews. All interviews were conducted in a mix of the local language (Malayalam) and English and lasted for an average of 40 minutes. Focus Group Discussions were conducted through group calls and lasted 45 minutes. After a few warm-up questions, the interview began with a general question. The researchers remained neutral while collecting the data and established a good rapport with the participants. Eleven In-depth Interviews and five Focus Group discussions were done. All the interviews were conducted by the authors who were natives of the study area and had an educational background in nursing. The interviewers had training and reasonable experience in conducting qualitative research.

Rigor

Trustworthiness of the data, credibility, dependability, transferability, and confirmability were ensured, as proposed by Lincoln and Guba.⁴ Prolonged engagement with participants usually promotes the credibility of a qualitative study. The researchers were in contact with the participants for a period of 1 - 3 years, which ensured credibility. However, the investigators had detached from the situation and interpreted the data more objectively. Participants included students in different batches from different nursing courses so that maximum diversity in terms of their course and year of study was ensured.

A co-worker with experience in qualitative research reviewed the interview transcripts and did the initial coding, thereby ascertaining the study's dependability. Regarding

transferability, the characteristics of the research population and the research process were clearly described to make key decisions in the analysis. The researchers actively put aside their thoughts and beliefs about the topic, recorded and documented the data accurately, and refrained from a deep review of texts to ensure the confirmability of the data.

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee of the Government College of Nursing, Thiruvananthapuram (IEC No. CNT/IEC/50/2/2021 dated 25/09/2021). Before the interview, information was given about the purpose of the study to the interviewees, and they were told that they could withdraw from the study at any time. Before initiating the scheduled interview, verbal consent was obtained and recorded telephonically. All interviews were digitally recorded with prior permission. All the participants were assured that confidentiality and privacy of the information would be maintained and the results would be published, maintaining anonymity.

Data Analysis

The baseline data of the participants were expressed in descriptive statistics. The variable resilience was dichotomised into good and poor resilience based on the median score. The factors associated with resilience were analysed using Chi-square. The telephone-recorded interviews were transcribed, and the transcripts were translated into English. It was analysed using latent content analysis. Latent content analysis involves the identification of the underlying meaning of the text. The selection of the unit of analysis was the initial step in the content analysis. Meaning units related to the aim of the study were selected from the interview transcript. The meaning units were condensed and coded. Similar codes were clustered together and collapsed into

categories. The theme was then identified, which illustrates the underlying meaning unit.

RESULTS

Baseline Characteristics of Study Participants

The baseline characteristics of study participants are presented in Table 1. The mean age was 22.15 (SD 4.42) years, ranging from 18 to 46 years. There were 36 (7.5%) boys and 441 (92.5%) girls. More than half of the participants, 264 (55.3%), were above the poverty line. There were 93 (19.5%) students from urban area, 367 (76.9%) students from rural area and 17 (3.6%) from coastal area. Most students were from nuclear families (433, 90.8%), and 44 (9.2%) were from joint families. The distribution of students based on the type of courses was as follows: three-year diploma – 95 (19.9%), undergraduate – 297 (62.3%), post-basic BSc Nursing (equivalency course of graduate nursing) – 48 (10.1%), and post-graduation in nursing – 37 (7.8%).

Resilience of the Study Participants

The mean resilience score was 71.20 (SD 13.74, 95% CI – 69.97- 72.44). The minimum reported score was 20, and the maximum score was 100. The median score was 73, with Q1, Q2, Q3, and Q4 being 0-62, 63-73, 74-81 and 82-100. Therefore, a score less than 62 has a lower resilience, a score of 63 to 81 has an average resilience, and a score of 82 and above would have a high resilience score. The Mean (SD) and frequency (%) of each item in CD-RISC are shown in Table 2. Domicile and year of study showed significant association with resilience (see Table 3).

Qualitative Phase

Four major themes have emerged out of the study, describing the experiences and resilience of nursing students during COVID-19. The themes were: psychological torment, experience related to COVID-19, experience related to teaching-learning activity and resilience.

Table 1. Baseline data of the study participants

Variable	Mean (SD)/f (%)
Age in years	22.15 (SD 4.42)
<i>Gender</i>	
Boys	36 (7.5%)
Girls	441 (92.5%)
<i>Income</i>	
Above Poverty Line	264 (55.3%)
Below Poverty Line	213 (44.7%)
<i>Place of residence</i>	
Urban	93 (19.5%)
Rural	367 (76.9%)
Coastal area	17 (3.6%)
<i>Type of family</i>	
Nuclear	433 (90.8%)
Joint	44 (9.2%)
<i>Birth order</i>	
First	245 (51.4%)
Second	194 (40.7%)
Third	38 (8.0%)
<i>Course of study</i>	
GNM	95 (19.9%)
Graduation in Nursing	297 (62.3%)
Post Basic BSc Nursing	42 (8.8%)
Post-graduation in Nursing	43 (9.0%)

f – frequency, SD – standard deviation

Theme 1: Psychological Torment

The theme of psychological torment was relevant as nursing students experienced anger, fear, anxiety and worries during the COVID-19 pandemic. Fear of contracting the illness was a common issue. Participants reported a reduction in patient interaction and reluctance to return home to avoid risk of infecting their loved ones. The students reported feelings of isolation and loneliness, as they were unable to interact with others due to the lockdown restrictions and also the restrictions imposed by college authorities. Anxiety was mainly due to stigma, as neighbours and relatives were fearful of the potential transmission of the disease, and they even avoided contact with these students. The theme highlights the toll the pandemic has taken on nursing students, who have been at the forefront of the battle against COVID-19.

- “Neighbours had fear, and they showed disinterest when I went to their house, so I reduced visits to their houses.” (IDI2)
- “Due to the restrictions at the hostel, sometimes not able to take bath..... had a bad experience from college. Felt sad when instructed not to come to college after clinical duty.” (IDI5)
- “We had a fear of mingling as there is a fear of contracting COVID; even the friends did not send messages.” (IDI7)
- “Due to lockdown, I could not visit my home for months. I felt sad and sometimes agitated.” (FDG1)

Theme 2: Experience Related to COVID

The students reported a wide range of experiences related to COVID. They reported financial problems as their parents lost their job during the pandemic. Participants described the challenges of managing COVID-19-related clinical and surveillance duties, dealing with frustrated patients, and working with inadequate Personal Protective Equipment kits. Wearing PPE kits for long hours was a major concern; they also reported that the masks were often too tight, hindering comfortable breathing.

- “My father was not able to go for job, so he had difficulty in paying even mess fees.” (IDI8)
- “The duty was hectic, especially in the emergency; wearing PPE throughout the night exhausted me.” (IDI5)

Theme 3: Experience Related to Teaching-learning Activity

Participants reported that they faced challenges with teaching-learning activity, especially during the initial period of online classes. They felt that whatever was being taught online need not be studied, and there was difficulty in accessing printed notes. However, some participants found it advantageous as all the notes were in their phones, and there was no need to carry papers or notebooks. Connectivity

Table 2. Resilience of the study participants

No.	Statements	*Mean (SD)	(0) f (%)	(1) f (%)	(2) f (%)	(3) f (%)	(4) f (%)
1.	I am able to adapt when changes occur.	2.97 (0.98)	10 (2.1)	20 (4.2)	114 (23.9)	161 (33.8)	172 (36.1)
2.	I have at least one close and secure relationship that helps me when I am stressed	3.20 (1.07)	15 (3.1)	28 (5.9)	58 (12.2)	123 (25.8)	253 (53.0)
3.	When there are no clear solutions to my problems, sometimes fate or God can help	2.84 (1.08)	17 (3.6)	34 (7.1)	117 (24.5)	151 (31.7)	158 (33.1)
4.	I can deal with whatever comes my way.	2.72 (0.99)	12 (2.5)	36 (7.5)	143 (30.0)	170 (35.6)	116 (24.3)
5.	Past successes give me confidence in dealing with new challenges and difficulties.	3.12 (0.91)	5 (1.0)	17 (3.6)	91 (19.1)	169 (35.4)	195 (40.9)
6.	I try to see the humorous side of things when I am faced with problems.	2.39 (1.13)	32 (6.7)	66 (13.8)	143 (30.0)	154 (32.3)	82 (17.2)
7.	Having to cope with stress can make me stronger.	2.86 (1.05)	16 (3.4)	34 (7.1)	103 (21.6)	173 (36.3)	151 (31.7)
8.	I tend to bounce back after illness, injury, or other hardships.	2.83 (1.06)	18 (3.8)	32 (6.7)	113 (23.7)	164 (34.4)	150 (31.4)
9.	Good or bad, I believe that most things happen for a reason.	3.32 (0.83)	1 (0.2)	13 (2.7)	68 (14.3)	143 (30.0)	252 (52.8)
10.	I give my best effort no matter what the outcome may be.	3.32 (0.85)	5 (1.0)	10 (2.1)	61 (12.8)	150 (31.4)	251 (52.6)
11.	I believe I can achieve my goals, even if there are obstacles.	3.30 (0.82)	3 (0.6)	6 (1.3)	73 (15.3)	157 (32.9)	238 (49.9)
12.	Even when things look hopeless, I don't give up.	3.04 (0.92)	5 (1.0)	21 (4.4)	99 (20.8)	176 (36.9)	176 (36.9)
13.	During times of stress/crisis, I know where to turn for help.	2.67 (1.07)	19 (4.0)	44 (9.2)	132 (27.7)	162 (34.0)	120 (25.2)
14.	Under pressure, I stay focused and think clearly.	2.52 (1.04)	23 (4.8)	50 (10.5)	142 (29.8)	181 (37.9)	81 (17.0)
15.	I prefer to take the lead in solving problems rather than letting 14 make all the decisions.	2.77 (1.06)	18 (3.8)	38 (8.0)	116 (24.3)	170 (35.6)	135 (28.3)
16.	I am not easily discouraged by failure.	2.35 (1.16)	31 (6.5)	80 (16.8)	147 (30.8)	128 (26.8)	91 (19.1)
17.	I think of myself as a strong person when dealing with life's challenges and difficulties.	2.60 (1.10)	21 (4.4)	58 (12.2)	121 (25.4)	167 (35.0)	110 (23.1)
18.	I make unpopular or difficult decisions.	2.08 (1.22)	60 (12.6)	93(19.5)	134 (28.1)	129 (27.0)	61 (12.8)
19.	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	2.53 (1.10)	27 (5.7)	47 (9.9)	146(30.6)	159 (33.3)	98 (20.5)
20.	I have to act on a hunch.	2.45 (0.96)	14 (2.9)	48 (10.1)	190 (39.8)	157 (32.9)	68 (14.3)
21.	I have a strong sense of purpose in life.	3.39 (0.90)	9 (1.9)	12 (2.5)	44 (9.2)	132 (27.7)	280 (58.7)
22.	I feel like I am in control	2.83 (1.10)	22 (4.6)	33 (6.9)	103 (21.6)	166 (34.8)	153 (32.1)
23.	I like challenges.	2.38 (1.20)	41 (8.6)	62 (13.0)	151 (31.7)	120 (25.2)	103 (21.6)
24.	I work to attain goals.	3.21 (0.90)	4 (0.8)	20 (4.2)	68 (14.3)	165 (34.6)	220 (46.1)
25.	I take pride in my achievements.	3.50 (0.82)	3 (0.6)	14 (2.9)	42 (8.8)	99 (20.8)	319 (66.9)

0 – not true at all, 1 – rarely true, 2 – sometimes true, 3 – often true, 4 – true nearly all of the time, * – Item-wise, f – frequency, SD- standard deviation

Table 3. Association between resilience and other variables

Variable	Low resilience	Average and above resilience	Chi-square (P value)	OR (95% CI)
<i>Age in years</i>				
Below 21	80	212	0.31 (0.58)	1.25 (0.81 -1.91)
Above 21	43	142		
<i>Gender</i>				
Boys	10	26	0.08 (0.46)	1.12 (0.52 - 2.39)
Girls	113	328		
<i>Income</i>				
APL	70	125	0.164 (0.69)	1.09 (0.72 - 1.65)
BPL	53	114		
<i>Type of Family</i>				
Nuclear	115	209	1.47 (0.23)	1.62 (0.74 - 3.60)
Joint	8	30		
<i>**Domicile</i>				
Urban	19	48	14.89 (0.001)	0.00 (Ref)
Rural	93	187		0.77(0.43 -1.32)
Coastal	11	4		0.05 (0.05 - 0.43)
<i>Birth order</i>				
First	58	123	2.09 (0.35)	0.00 (Ref)
Second	52	99		1.68 (0.81 - 3.49)
Third and above	13	17		1.42 (0.68 -2.98)
<i>Course</i>				
GNM	24	43	2.18 (0.54)	1.02 (0.45 - 2.32)
BSc Nursing	81	151		0.92 (0.44 -1.90)
Post Basic Nursing	7	23		1.72 (0.59 - 4.97)
MSc Nursing	11	22		0.00 (Ref)
<i>*Year of study</i>				
First year	30	76	9.69 (0.02)	00.00 (Ref)
Second year	41	67		0.99 (0.51 - 1.99)
Third year	34	47		0.59 (0.31 - 1.11)
Final year	18	49		0.26 (0.24 - 0.89)

* - p < 0.05, ** - p < 0.01

issues were reported as a significant barrier in the teaching-learning process through online mode. Participants faced frequent breaks in classes, which led to disinterest in attending the class. Some have reported physical problems like headache and shoulder pain. Participants had to go to their neighbour's house to access the internet. They used to leave classes after switching on the online class and engage in social media. They felt less motivated and lazy compared to offline classes, and faced difficulty in communicating with teachers. They had no

direct contact with teachers, and teachers often failed to identify students who were not attending online classes. The evaluation was ineffective for theory exams, and participants felt they could write the examination by copying and required little preparation. However, they were satisfied with the Objective Structured Clinical Examination for practical exams, which was new for them, but they found it easy and good. When clinical posting restarted, the students reported a lack of patient-oriented teaching in many clinical specialties due to the

fear of contracting the disease.

- “During online classes, there were frequent breaks in class due to connectivity issues. I often had physical problems, including headache and shoulder pain. So, I had no interest in attending the class.” (FGD 2).
- “Teachers used to give notes and slides but had difficulty in communicating with teachers.” - (FGD5)
- “We were lazy and less self-motivated. During the class used to engage with other social media like YouTube. Got ultimate freedom to use mobile” - (IDI11)
- “Online examination was not effective. No preparation was needed, felt that we can copy”- (FGD 1)
- “Examination was postponed often. Each time had to prepare and then again...Topics were not clear during examination time, so was more stressed when compared to the previous year.”- (FGD5)

Theme 4: Resilience

The COVID-19 pandemic has been a challenging time for nursing students, but it has also given rise to the development of resilience in them. The majority took the initiative to adjust themselves psychologically through cognitive adjustments, diverting attention, communicating with family members, actively seeking the help of professional counsellors, and connecting with their own morality or beliefs. Some participants expressed that they could excel during clinical posting as they had ample opportunities to manage the ward independently. Participants reported that they were able to overcome challenges without losing hope and could bear things without reacting impulsively. This shows that some students possess an innate ability to cope with the crisis and manage their emotions effectively. Due to the use of digital technology, participants could keep in regular touch with family members and friends, which provided a sense of comfort and emotional support. The participants also mentioned that the support

and interaction with teachers helped them to cope with the challenges posed by the pandemic. Some interviewees reported that they joined prayer groups and relied on their faith to seek psychological support. Additionally, local people provided food at home, which helped to reduce their anxiety and stress levels.

- “I was posted alone in wards, so I was able to perform all the procedures during that time. There was a long gap, but I could manage well.” (IDI2).
- “I felt that the status of the Nursing profession improved as the social responsibility of nurses was acknowledged.” (FGD5)
- “I was the student coordinator of many programs which were conducted through a virtual platform. I was happy about taking leadership”- (IDI11)
- “Due to support and interaction with teachers, we were able to cope with COVID, and friends were there always to support through video calls.” (FGD3)
- “There were many local people who provided food at home each time. Prayer groups were there who offered psychological support.” (FGD1).
- “Earlier, we were not aware of OSCE; it was good and easy.” (FDG5).
- “Even when things look hopeless, I don’t give up.” (IDI9).

DISCUSSION

The experience of nursing students during the COVID-19 pandemic is inherently and inevitably contextual, varying among nursing institutions. Nursing students have confronted several challenges due to the sudden change in the learning platform, the inability to have clinical experience and many obstacles due to the COVID-19 pandemic. Several studies have been conducted to assess resilience among nursing students using quantitative approach. The experience of nursing students during the COVID-19 pandemic is complex and

multifaceted, requiring a comprehensive understanding beyond quantitative measures alone. So, we have taken up a mixed method approach to assess resilience and explore nursing students' experiences. To the best of our knowledge, this is the first study in Kerala employing a mixed method approach to explore the resilience and experiences of nursing students during COVID-19.

In the present study, resilience was assessed using the Connor-Davidson Resilience scale (CD-RISC), which revealed the mean resilience score as 71.20 (SD 13.74, 95% CI – 69.97-72.44). Similar findings were reported in other studies.^{5,6} This finding may be attributed to the fact that, during their academic process, student nurses are taught about different coping strategies and adopting positive lifestyle measures that might have enhanced their psychological well-being. The nursing students might have received increased social and academic support, which might have increased their resilience scores. In contrast to the study findings, the resilience of nursing students during the COVID-19 pandemic was found to be average^{7,8} and low,⁹ in other studies. The discrepancy in the resilience scores across the studies may be attributed to the fact that the primary authors of the CD-RISC tool have not specified a scoring pattern for the classification of resilience. Instead, they indicate that the higher the score, the higher the resilience.

The study explored nursing students' experiences during COVID-19, and four major themes emerged: psychological torment, experience related to COVID-19, experience related to teaching-learning activity and resilience. This study finding was congruent with another study which identified shifting support systems, disconnection, worry, sense of missing out, environmental stress and continual adaptation as the major themes.¹⁰

Psychological torment evolved as a theme as the participants reported anxiety, fear and loneliness during COVID-19. This finding was in agreement with another study in which

students felt a lack of motivation, anxiety, stress, and isolation during the pandemic.¹¹

Participants reported stigmatization by relatives, neighbours and the public, in their places of accommodation and public transport, due to the fear of contracting the disease. Neighbours and friends were afraid to interact with them, thinking that they would transmit the virus to them from the hospital. Similar narrations were identified in which participants feared they would face stigma and discrimination by the community.¹²

Students reported a shortage of Personal Protective Equipment during clinical posting. This finding is in agreement with another study in which participants narrated that the shortage of equipment and supplies in the clinical area aroused fear in them.¹²

In the present study, participants reported a lack of patient-oriented teaching due to the fear of spreading the disease. Similarly, another study reported that students used avoidance strategies due to fear of contracting COVID while in clinical practice. Although the students were in the clinical area to provide care, they were restricted from being in close contact with the patients to protect themselves from the virus.¹³

Experience related to teaching-learning activity evolved as a theme as the participants reported distinct experiences concerning teaching-learning process. Most participants were dissatisfied with online teaching because of decreased interaction with teachers. In concordance with the present study, another study elicited that the absence of face-to-face communication and lack of feedback from faculty inhibited the formation of an effective teaching-learning relationship.¹⁴ Another study also reported that online learning resulted in decreased socialisation with peers, which was an important concern for the students.¹⁵ In the present study, students felt less motivated and lazy compared to offline classes, with increased interaction and sharing of

experiences. They used to leave classes after switching on the online class and used to engage in social media. In a study conducted among students in medical education, students reported that they used to cheat during examinations which were conducted through online media.¹⁶

Resilience was one of the major themes underpinning how the participants overcame the pandemic. Some participants reported that they were able to manage patients independently during COVID, which fostered their professional growth. This was supported by a study in which students indicated that there was self-development and growth.¹⁵ Present study revealed that support from family, friends and teachers helped in developing resilience. Similar narratives were evident from a study that reported that the availability of family, friends, and faculty promoted students' resilience.¹⁷ But this was not in concordance with another study in which students relied mainly on interpersonal relationships to navigate challenging situations before the pandemic. Still, these relationships were not available during COVID due to public restrictions.¹⁵ Lack of social interactions was also identified as a theme in a study conducted among Israeli nursing students.¹⁸

Limitations

The study was conducted among nursing students from a specific institution in Kerala, India, using census sampling. As the study was limited to a single institution, the sample may not be representative of the entire population of nursing students in Kerala or other regions. The study relied on self-reported data collected through questionnaires, interviews, and focus group discussions by online mode. Self-reporting can be subject to recall bias and social desirability bias. This could affect the accuracy and reliability of the data collected. This could limit the depth of understanding regarding the psychological problems faced by nursing students during the pandemic. While efforts were made to maintain objectivity during data

collection and analysis, the researchers' backgrounds in nursing and qualitative research could introduce biases or preconceived notions that may have influenced data interpretation. The online mode of data collection may lack the personal interaction and the non-verbal cues present in face-to-face interviews, potentially affecting the depth and richness of the qualitative data gathered. But this was the only alternative that allowed researchers to continue data collection while adhering to public health guidelines, ensuring the well-being of participants and researchers alike.

Conclusions

The study gave a better understanding of the resilience and experiences of nursing students in response to COVID-19. In the present study, nursing students had high resilience scores. Overall, the nursing students developed resilience during the COVID-19 pandemic by a combination of intrinsic factors, social support, and spiritual measures. Enhancing social and organizational support during epidemics of infectious diseases helps to strengthen the mental health and resilience of nursing students. These findings highlight the need for nursing education to incorporate strategies that address the fears and concerns of nursing students during similar pandemic situations. Multisite studies can be undertaken to gain a better understanding of the needs of students during similar crises so that remedial measures can be built to foster resilience among them.

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