Challenges Faced and Lessons Learnt by Nursing Professionals during Covid-19 Pandemic in India: A Qualitative Content Analysis

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Abstract

Nurses on the front lines of the health care faced a lot of personal and professional challenges during the delivery of patient care with Covid-19. Nevertheless, they learnt many lessons to provide quality patient care. Qualitative research describing these phenomena is comparatively rare. This study aimed to explore the challenges faced and lessons learnt by the nursing service department during the crisis of Covid-19 pandemic in India. In this inductive manifest content analysis, data emerging from 21 presentations done by Nursing professionals as a part of Ministry of Health and Family Welfare (MOHFW) Nursing Echo initiative for 'Capacity Building of Nursing professionals for Caring the patients during Covid-19 Pandemic' was used. Video-recorded presentations were condensed until a code was labelled to the meanings. Data evolved into subcategories that led to the emergence of categories. Four categories (staffing issues, training and protocols issues, psychological concerns and infrastructure and supplies issues) and 11 sub-categories emerged for the challenges faced by nursing personnel. The study also brought out four categories (modifying infrastructure to set up Covid care facility, collaboration, training and protocols, and improving welfare) and seven sub-categories related to lessons learnt by Nursing professionals. Nursing personnel in India demonstrated immense professional dedication and played an important role in patient's recovery. A multifaceted support to nursing professionals from the government, policy makers and administrative body should be provided to safeguard their wellbeing and have them in ready to manage crisis.

Key words: Covid-19 pandemic; nursing professionals' challenges; content analysis

The rapid and undetected spread of Covid-19 and the relatively high mortality rate from Covid-19 related pneumonia have combined to create the pandemic crisis, which impacts greatly on health, economics, and social life on a global scale (Chen et al, 2020). Infection prevention and control in primary, community, and acute care settings present healthcare and nursing professionals with huge challenges (CDC, 2019) especially during Covid-19. A research study in India by Godrej Interio's on 'Elevating experiences, enriching lives' to analyse the current work environment and work pattern of the nurses in India (Overcoming Challenges, 2020). The study revealed that long working hours, overtime and work overload affects the physical and psychological wellbeing of the nurses. While more than 90 percent of nurses have musculoskeletal disorder, 61 percent also experienced neck pain sometimes.

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In every country, nurses 'stepped up and stepped beyond' their calling. They work in the forefront managing patient screenings, placement and care of patients in the Covid zone. They push themselves to the limit by putting their lives on the line, very often with limited resources (Role of Nursing, 2020). A study was conducted in 2022 to identify the experiences and challenges faced by 19 nurses working in clinics in Turkey during the Covid-19 pandemic. The experiences of nurses caring for Covid-19 patients were summarised into five major themes: psychosocial adaptation, protection, difficulty in care & treatment, access to information and working conditions. The study concluded that nurses caring for Covid-19 patients have been affected psychologically, socially and physiologically (Experience of Nurses, 2022).

A qualitative study (Irandoost et al, 2022) was conducted to describe the problems and adaptation techniques of 30 nurses working in Covid-19 wards in Tehran hospitals. The data was examined using conventional qualitative content analysis and the MAXQDA-18 programme. The results revealed two

main categories and sixteen subcategories: (1) experiences and challenges, and (2) adaptation strategies for work conditions. The study concluded that nurses' working conditions can be improved by providing adequate protective equipment, a suitable work environment, and more social and financial support; paying more attention to nurses' physical and mental health; and considering appropriate communication mechanisms for nurses to communicate with their families and patients' families.

There are hardly any qualitative studies describing the various challenges and lessons learnt by Nurses during Covid across India. This study was undertaken based on the first hand information presented by various nursing professionals across various states in India.

Objectives

The main aim of our study was to explore the challenges faced and the lessons learnt by the nursing services in India during the crisis of Covid-19 pandemic.

Methods

Qualitative inductive manifest content analysis was the research design. The presentations done by Nursing Professionals as a part of 'Capacity Building of Nursing professionals for caring the patients during Covid-19 pandemic' were used as data for the analysis. Content analysis tries to extract meaning units from video-recorded presentations and condense them until a code can be labelled to the meanings. Manifest content analysis (Bengtsson, 2016) helps to draw a broad surface structure for analysis.

Twenty-one presentations done from 23 June to 26 June 2020 were used as data (Table 1). Permission to use the data was obtained from the respective authorities. The presenters included Nursing Superintendents, Principals of Schools & Colleges of Nursing, Chief coordinator of Clinical Nursing education, Registrars of Nursing Councils, Matrons, Head of Nursing Department, Chief Nursing Officers, Nursing Officers, staff nurses, and infection control nurses. Participants were from various states that include Maharashtra, Jharkhand, Gujarat, Sikkim, Odisha, Kerala, and Tamilnadu. Each presentation lasted for 10 to 15 minutes. Criteria for inclusion were (1) Presentations conducted on the topic 'Challenges faced and Lessons learnt by Nursing personnel' (2) Those who gave consent to use their presented data for the study purpose. Purposive sampling technique was used for this study.

The content of all presentations were collected and through inductive process, the coding was analysed. After watching the recorded presentations several times, all the presentations were transcribed. Then the coding process was started through identifying and highlighting sentences and paragraphs of the analysing unit. Codes with same meaning were classified into a group of subcategories. Once the relationship between sub-categories had been identified, categories were apparent.

Ethical considerations: Ethical clearance was obtained from the Institution Ethics Committee. Obtaining informed consent, ensuring participants' privacy, and data confidentiality, maintaining anonymity of the participants and the hospitals were observed while presenting the data.

Results

Baseline Variables

Majority of the participants (5) were Principals of schools and colleges of Nursing. Six participants were from Kerala. Among the six participants from Kerala, 4 presenters belonging to various professional cadres were from the same Hospital. Most of the presenters (11) belonged to a hospital that had bed strength greater than 1000 and were of Government type (11) (Table 1).

Categories

Four categories and eleven sub-categories emerged for the challenges faced by nursing personnel. The study also resulted in four categories and seven sub-categories related to lessons learnt by nursing professionals.

Challenges faced by Nursing Personnel

Table 1: Details of the baseline variables (N=21)

Sl. No	Variables	Frequency
1	**Presenter**	
	Registrars of Nursing Council / Director	2
	Nursing Superintendent	2
	Principals of Schools and Colleges of Nursing	5
	Chief Nursing Officer	3
	Matron / Head of Nursing Department/GM	4
	Nursing Officer	3
	Assistant Professor	1
	Infection control Nurse	1
2	**State**	
	Maharashtra	7
	Jharkhand	1
	Gujarat	1
	Sikkim	1
	Odisha	3
	Kerala	6
	Tamilnadu	2
3	**Type of Hospital**	
	Government	11
	Private	10
4	**Size of Hospital**	
	< 1000 bedded	10
	> 1000 bedded	11

Staffing issues: Most of the sample (18) said that staffing issues was a major challenge they faced during the pandemic of Covid-19.

a. Increased attrition: Attrition or drop outs were reported by five hospitals. 'Long workhours and increased workload are the contributing factors' reported a presenter.

b. Deploying students: In many hospitals (6) students were deployed when there was shortage of staff nurses, especially when the nurses were in quarantine. Great resistance was exhibited by parents and students themselves. They were bargaining with the authorities as 'Why we?' Two nursing administrators expressed that they were bargaining with the authorities in nursing college to deploy students for clinical duty. Principals expressed 'I had to convince, and get the confidence of students' parents before they were deployed for the same'.

c. Recruiting new staff: Two nursing administrators (one chief nursing officer and one Nursing superintendent) expressed 'Most of the recruited nurses were fresher's and they had lack of confidence in patient care'. Two personnel expressed 'We experienced lot of difficulties to train these new nurses about our hospital policies'.

d. Retaining nurses: Most of the nurse administrators expressed 'Due to lockdown travelling issues our hospital arranged a vehicle for staffs pick up and drop. Addressing quarantine facility and arranging food for staff nurses including nursing students were the real challenges we faced to retain them'.

Issues related to Training and Protocols

a. Training issues: Administrators expressed 'It was difficult to train nurses as there was pooling of staff with different levels of qualification'. One nursing officer said 'As only limited number of participants could be trained in each session due to social distancing we circulated the class videos through online'. 'Again this training had to be completed within short span of time' was a concern shared by a Nursing Superintendent.

b. Changing protocols: Five presenters expressed the challenge as 'policies and protocols are frequently changing based on new evidences. Ever changing guidelines from various authorities led to confusion amongst staff nurses'. Lack of infection control teams and lack of training & mentoring personnel were identified as difficulties by one nursing personnel.

Psychological Concerns

a. Fear and anxiety: A nursing officer said, 'Fear Psychosis is seen among most nurses in-spite of providing counselling'. A chief nursing officer commented 'Unknown fear and anxiety due to various social media news and its impact including fear of mortality due to Western statistics are seen among nurses'. Two Principals presented 'Illness anxiety is seen in nursing students and their parents expressed as resistance to work in Covid-19 areas'.

b. Experiencing mental stress and burn out: Nurses experienced a great deal of stress as they were away from their families and due to fear of being infected. A nursing administrator said 'My staff are going through mental stress in-spite of providing stress management by psychiatrist'. A Chief Nursing officer expressed, 'Burn outs are common among staff nurses. Few nurses experience suffocation, vomiting, and panic behaviour while wearing PPE kit'. One Principal said 'urinary tract infection, dehydration, rashes, body ache, back and muscles pain are reported by students when they are on PPE's'.

c. Facing social stigma and threats: Two nursing officers said, 'Few nurses experienced social stigma, especially from Managements in Hostel and residential areas. Violence is also exhibited towards health care workers, including nurses'.

Infrastructure and Supplies Issues

a. Modifying existing hospital system: Nursing personnel were expected to be highly involved in modifying the hospital system to tackle the pandemic. In the words of a nursing Superintendent, "We got very less period to convert 40 reserved beds for Covid-19 to Dedicated Covid Hospital … in just 4 days. And the whole conversion took place in a time span of two months". 'Changing from the usual work pattern to pandemic control, creating staff quarantine facilities within a short span of time is the greatest challenge' was expressed by most of the presenters.

b. Instruments and supplies: A nursing officer who works in a Covid unit presented 'new instruments are installed in Covid ICU. Equipments which are not user-friendly are very difficult to maintain while in PPE. One nursing superintendent said 'Paucity and poor quality of PPE to right selection of PPE during abundance as most wrappers of PPE did not specify standards and GSM was a challenge faced by nurses'. 'Shortage of PPE kits' was reported by seven hospitals.

Lessons Learnt by Nursing Personnel

Modifying infrastructure to set up COVID care facility

Seven personnel presented 'There is a need to initiate setting up or modifying the existing infrastructure into a Covid care centre'. One Chief nursing officer said 'we had to modify the facilities, to have separate

stay, food and isolation facilities'. The same was repeated by a Director of Nursing, as 'We had to establish a dedicated entry and exit route in the hospital'. In the words of a Chief Nursing officer from Tamilnadu, 'We created separate ward for positive and suspected cases ... we even created ICU including NICU and OT's separately for Covid-19 patients'. Initiation of the flu or triage clinics including establishing a green corridor for positive patient movement under the code green was another lesson learnt by nursing professionals.

Collaboration

a. Team work: Four presenters shared the wonderful collaboration among health professionals to handle the crisis situation. A Nodal officer for Covid-19 prevention and control in a medical college in Kerala said 'It was really noteworthy that doctors were ready to help and support nursing personnel in the clinical area moving beyond their job description'. This was supported by a Nursing Superintendent from Odisha who said 'Clinical expertise team in Medical College was established who reviews the patient treatment through phone call and records review daily'. Registrar from a nursing council presented that deputation of nursing staff from other Govt. Hospitals to Covid Hospital was done. 'Supervision and decentralised responsibilities of faculty was reported in Kerala, Maharashtra, Odisha and Gujarat.

b. Research activities: One Principal of a college of nursing said that lots of research is being carried out, especially on the challenges faced by nurses. Data gathering regarding positive patients, number of people tested, people on isolation, PPE kit available, staff on quarantine etc. were incredible tasks that occurred due to the collective efforts of health personnel.

c. Communication and debriefing: Six presenters said 'Regular meetings and communication with higher authorities was an important lesson learnt to handle the Covid crisis situation'. 'We followed centralised, consistent communication & dissemination of information' were the words of a Nursing Superintendent. One chief nursing officer presented that regular debriefing with patients was conducted.

Trainings and Protocols

a. Training Sessions

Nodal officer for Covid-19 prevention and control in a medical college in Kerala said 'We prepared Hand book on Covid-19 in local language for patients and persons in home quarantine'. He also added, 'We also prepared posters on Donning, and Doffing of PPE, hand washing to display in the Isolation wards and wards of Medical college hospital'. All the presenters said that various training sessions were organised to equip nurses with sound knowledge and skills in handling patients suffering from Covid-19. 'Strengthening the online platform for learning and patient care' was the basic statement pronounced by all the presenters to maintain social distancing. They adopted E learning methods (Lectures, Demonstrations, exams, quiz, webinar, meetings, E Learning through DIKSHA app, TNAI e- learning platform).

b. Designing and Following Protocols

All the twenty-one presenters said that preparing staff to adhere new protocols was a significant lesson learnt. They discussed the protocols which were formulated namely 'Food delivery system; Food waste collection system; Bio Medical Waste Management; Linen management; Digital thermometer, Weaning protocol for ventilators, discharge advise to patients regarding home quarantine care given during discharge etc'. A presenter said "We stopped electronic punching in our hospital". Most of them said that they were following all the SOPs (Standard operating procedures) prepared for the institute along with the SOPs of MoHFW.

Improving Welfare

a. Staff and Student Welfare

Almost all the presenters agreed on the fact that necessary steps were undertaken to promote staff and students welfare. One presenter said that 24 hours' online support for health workers was arranged. Mental health Souhruda counselling was given to both students and interns. One Nursing officer said that facilities for yoga were arranged within the premises. Two presenters said 'provisions were made to assure that nurses would be given complete treatment in special rooms, if they become infected'. Insurance coverage and incentives including paid layoffs were the privileges presented by two of them.

b. Patient Welfare

All the presenters unanimously presented that various steps were taken to ensure food and counselling for patient and relatives. One nursing officer said 'modified diet plan is implemented which includes fruits, vegetables, nuts, dates, oats, wheat items, increased water intake (8-10 glass per day) and high Vitamin C-rich foods for patients'. She also added 'psychological problems of patients in isolation are managed through telephonic counselling'.

Discussion

This study has explored the various challenges faced and lessons learnt by nursing personnel across a wide cadre ranging from infection control nurse till the Nursing Chief Nursing Officer including registrars of nursing councils. Staffing issues and challenges faced in acquiring supplies includ-

ing PPE's was reported in the present study. Joshi (2020) has enumerated the common problems faced by staff nurses during the Covid crisis. Shortage of experienced nurses in the hospitals and clinics, shortage of personal protective equipment (PPE), unavailability of accommodation and transport facilities, inadequate quarantine facilities, lack of health insurance coverage are few of the problems listed. This supports the present study findings, though data on lack of health insurance did not emerge in the study.

The present study reflects that nursing professionals had crucial role in treating patients with Covid-19, and they tried to provide the best care to patients in a difficult situation. Training sessions on various aspects of self-care and care for patients were described as an efficient lesson that was learned. A systematic review (Fernandez et al, 2020) was conducted to synthesise the nurses' experiences of working in acute care hospital settings during a respiratory pandemic. Themes and narrative statements were extracted from included papers using the SUMARI data extraction tool from Joanna Briggs Institute. One among the three synthesised category that emerged from the study was supportive nursing teams providing quality care. This supports the present study findings where team work was identified as one of the strength and a lesson learnt.

Lack of protective equipment, problems related to use of protective equipment's, psychological problems, fear etc. were the sub-categories that emerged related to the category on experiences and challenges in a qualitative study (Irandoost et al, 2020) conducted to describe the problems and adaptation techniques of 30 nurses working in Covid-19 wards in Tehran hospitals. This supports the present study findings.

The emerged categories and sub-categories from the qualitative content analysis echoes the challenges faced and lessons learnt by the wide cadre of nursing professionals in India during the Covid 19 pandemic. The study was conducted only on the participants who presented the data based on the initiative of MOHFW. As a direct consequence of this methodology, the study encountered a number of limitations which need to be considered. However, this is the first qualitative content analysis study that is reported based on the experiences of nurses from various states in India. This study concludes that there is a great need to support these caring hands by empowering and helping them to cross the hurdles encountered during Covid-19.

Conclusion

This content analysis reveals that amidst great challenges of Covid-19, nursing professionals showed great strength and resilience. Indian nurses demonstrated a great deed of professional dedication and played an important role in patient's recovery. It is important to do various research studies focussing on the lived experiences of staff nurses and also on policies related to confronting and managing Covid-19 which would shed light on the various dimensions of support provided by nursing professionals. A good and multifaceted support to nursing professionals from the government, policy makers and administrative body should be provided to safeguard their wellbeing and in preparedness and efficacy promoted to manage crisis.

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