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# The long-term impact of COVID-19 on nursing: An e-panel discussion from the International Network for Child and Family Centred Care

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## Abstract

**Aim:** To explore the International Network for Child and Family Centred Care (INCFCC) members' experiences and views on the long-term impact of COVID-19 on the nursing workforce.

**Background:** On the 11 March 2020, the World Health Organization declared COVID-19 a global pandemic. While some countries adopted a herd immunity approach, others imposed stricter measures to reduce the transmission of the virus. Hospitals in some countries faced an avalanche of extremely sick admissions, whereas others experienced an early surge in cases or were able to control the spread.

**Design:** Discursive paper.

**Methods:** A web-based survey was e-mailed to 63 INCFCC members from 28 March to 30 April 2022, as an invitation to share their experience concerning the long-term impact of COVID-19 on their role as a nurse educator, clinician or researcher.

**Results:** Sixteen members responded, and the responses were grouped under the themes stress and anxiety, safe staffing and pay, doing things differently, impact on research, impact on teaching and learning, impact on clinical practice, nursing made visible and lessons for the future.

**Conclusion:** The INCFCC members provided their views and highlighted the impact on their role in nursing education, administration, research and/or practice. This discussion of international perspectives on the similarities and differences imposed by COVID-19 found that the impact was wide-ranging and prolonged. The overarching theme revealed the resilience of the participating members in the face of COVID-19.

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**Relevance to Clinical Practice:** This study highlights the importance of all areas of nursing, be it in academia or in clinical practice, to work together to learn from the present and to plan for the future. Future work should focus on supporting organisational and personal resiliency and effective interventions to support the nursing workforce both during a disaster and in the recovery phase. Nursing workforce resilience in the face of COVID-19.

**KEY WORDS**

children's nurses, crisis intervention, disaster, international health, nursing education, nursing practice, nursing research, nursing workforce, paediatrics

## 1 | BACKGROUND

On 11 March 2020, the World Health Organisation (WHO) Director-General declared that the Coronavirus disease 2019 (COVID-19) was a global pandemic (World Health Organisation, 2020). The COVID-19 virus brought with it uncertainty, challenges and risks as nurses were deemed as one of the groups with the highest risk of exposure (Gholami et al., 2021). As most governments followed the recommendations and updates provided by the WHO, a series of preventive measures were implemented at local, national and international levels to manage and limit the spread of COVID-19 (Department of the Prime Minister and Cabinet, 2020; World Health Organisation, 2021). These included restrictions on travel, education, religious and social events and employment (Maison et al., 2021; Sigala, 2020). In haste, many hospitals in major cities, such as New York, stopped allowing nursing students to practice in most units, as these units were quickly converted to COVID-19 intensive care areas (Fraymovich et al., 2020). The need to increase the number of beds available to patients with COVID-19 led to restrictions on elective procedures and rapid reorganisation of services in many hospital areas.

While some countries were more able to control the spread of infection and the number of patients requiring hospitalisation, other countries had to rapidly recruit nurses to meet the huge demand for adult critical care nursing (Baptiste, 2020; Buchan & Catton, 2020; Stievano et al., 2021). This demand impacted specialty care nurses, namely neonatal and paediatric nurses, who were required to work in areas outside their scope of practice in adult COVID-19 wards (Danielis et al., 2021; Juan et al., 2022; Sniderman et al., 2022). The nursing workforce was caring for critically unwell patients with limited or no family input, limited beds, lack of equipment, personal protection equipment (PPE) and training, media misinformation, fear of being infected or infecting one's family, concerns over employment and high mortality rates (Juan et al., 2022; Koren et al., 2021; Lulgjuraj et al., 2021). The resulting stress and uncertainty significantly impacted nurses' well-being globally (Juan et al., 2022; Koren et al., 2021; Lulgjuraj et al., 2021). Some countries initiated specialty COVID-19 wards, and acute care services, and revised their rules or guidelines, and authorities tried to support nurses who became physically or mentally unwell with COVID-19. The initial and long-term impact of COVID-19 was extensive and continues

**What does this paper contribute to the wider global community?**

- International perspectives on the impact of COVID-19 on nursing roles found that the impact is wide-ranging and prolonged.
- It is important that clinicians, academics and organisations work together and learn from the COVID-19 pandemic to plan for the future.
- Future work should focus on supporting organisational and personal resiliency and effective interventions to support the nursing workforce both during a disaster and in the recovery phase.

to be a significant clinical concern (da Silva & Neto, 2021; de Pablo et al., 2020; Kambhampati et al., 2020).

The literature also reports some positive experiences during the COVID-19 pandemic that included hope, gratitude, personal accomplishment and feeling supported (Baskin & Bartlett, 2021; Chegini et al., 2021; Hu et al., 2020). It is reported that nurses with higher resiliency scores experienced fewer negative physical and psychological outcomes (Hu et al., 2020; Roberts et al., 2021). Resiliency scores have been found to have a statistically significant relationship with time spent working with COVID-19 patients, post-traumatic stress disorders, anxiety, burnout, emotional exhaustion, depersonalization and depression with a positive correlation to personal accomplishment (Hu et al., 2020; Li et al., 2020; Roberts et al., 2021; Salman et al., 2020).

Effective leadership, implementation of internationally standardised guidelines in crisis management, and high levels of awareness and commitment are seen as essential to success in mitigating the effects of the pandemic (Chen et al., 2020). The subsequent months of the pre-vaccine era made it clear that nursing practice would never be the same, with 'terror turned into courage...to fight and be resilient' (Baptiste, 2020, p. 5). Months of isolation in lockdown, followed by years of hospital systems facing a new phase of recovering from decisions made, leaves one reflecting on the nightmares and 'hero' moments of the past (American Hospital Association, 2021; International Council of Nurses, 2021b). The impact of COVID-19

on the nursing workforce has magnified the need to review policies and strategies by governments, organisations, nurses and nursing faculty to mitigate staff shortages, reduce gaps in knowledge, prevent inadequacies in healthcare delivery, provide psychological and social support for patients (Cena et al., 2021). In addition, the need to undertake research to enhance knowledge on COVID-19 management has been stressed (Baskin & Bartlett, 2021; Chen et al., 2020; International Centre on Nurse Migration, 2022).

These emerging issues within nursing education, research and practice are prevalent globally and were discussed at the International Network for Child and Family Centred Care (INCFCC) meeting in February 2022. Following this, the INCFCC members agreed to contribute to a web-based survey. It was felt that sharing experiences on the long-term impact of COVID-19 on the nursing workforce would capture the impact of the pandemic on nursing globally.

## 2 | THE APPROACH

A web-based survey was undertaken. It consisted of five short answer questions to explore members' perspectives on the impact of COVID-19 on education, administration, clinician and researcher roles (Table 1).

Sixty-three members of the INCFCC (International Network for Child and Family Centred Care, 2019) were invited via email to contribute their points of view. The e-panel discussion project was not a research study but rather a consultation approach to explore how the long-term impact of COVID-19 had affected the nursing workforce. A key reason for not undertaking this as a research study was that we wished to gain insight into how the long-term impact of COVID-19 had affected the nursing role and we wanted to undertake this globally. Given the number of countries involved it would have been impossible to secure ethical approval in all these countries within the time frame. Consequently, we chose an ethically conducted consultation approach that was further supported by the INCFCC memorandum of understanding, signed by all INCFCC members. The survey was performed according to the

ethical principles stated in the Declaration of Helsinki (World Health Organisation, 2001). Potential panellists were provided with a brief introduction and informed that their contributions were voluntary and a collection of their professional points of view, from their country, on the subject matter. Panellists were told that by answering the questions and responding to the email, they were consenting to be part of the e-panel discussion; if they did not wish to contribute, they could opt out of responding to the questions/email. The intention was to encourage various views in all areas of nursing practice, education and research. Panellists were instructed to begin their responses with an account of their role and an aspect or perspective they hoped to convey. Panellists were able to link their responses to potential references to the published literature in a list of additional readings. Individual points of view were not intended to be representative of one's country, but rather, an overview of how COVID-19 has impacted the nursing workforce globally.

### 2.1 | Data analysis

All comments from the web-based survey were extracted by the lead author and grouped by similarity to identify key themes and provide an overview of how COVID-19 has impacted the nursing workforce globally. The second author reviewed the data analysis, and consensus among all authors was achieved before the finalisation of the themes.

### 2.2 | Positioning of the panellists

The INCFCC is a growing global collaboration of experts in child and family centred care and includes 63 members across 23 countries (Al-Motlaq et al., 2021; Foster & Shields, 2020; International Network for Child and Family Centred Care, 2019). The network members communicate and collaborate in research, practice development and education to identify good practices to develop the evidence base to influence positive change at local and international levels. This collaborative network achieves our vision by considering

TABLE 1 e-Panel discussion questions.

Number	Question
1	How have you, your nursing colleagues, your faculty colleagues or your students been affected by COVID-19 in the workforce in which you work, teach or undertake research?
2	What have you observed in your country's literature that describes how widespread the nursing workforce has been impacted in hospitals or universities by the COVID-19 pandemic?
3	There were probably some positives from the challenges we all faced. What new opportunities and/or consequences for nurses and the nursing profession have arisen from this ubiquitous COVID-19 experience?
4	Can you briefly share what some experts – or you – suggest to mitigate the problems associated with the workforce issues from the rapid spread of COVID-19?
5	Any last comments or views?

the specific challenges of different cultures and care settings and ensuring that children and their families are at the heart of the caring process. Sixteen participants from nine countries (Australia, Denmark, England, Indonesia, Ireland, Jordan, New Zealand, Sweden and the United States) participated in the survey.

### 3 | RESULTS

#### 3.1 | Nursing workforce resilience in the face of COVID-19 summary of e-panel discussion

The panellists' responses indicated the nursing workforce's resilience in the face of COVID-19. The responses showed many similarities of experience between the countries surveyed, and findings were grouped under the following themes: stress and anxiety, safe staffing and pay, doing things differently, impact on research, impact on teaching and learning, impact on clinical practice, nursing made visible and lessons for the future as represented in [Table 2](#).

##### 3.1.1 | Stress and anxiety

A strong message from panellists concerning the stress and anxiety caused by COVID-19 came from nine countries. Panellists from Denmark, Ireland, Sweden and New Zealand reported how nurses experienced 'increased stress levels due to working in departments and environments that they were not familiar with' and were 'exhausted' or had 'long-term absences from work due to stress-related conditions such as PTSD and burnout.' In addition, the panellists described symptoms of chronic fatigue, anxiety, long COVID-19 and depression. The stress and anxiety had many layers and for those working on the front line, this was related to shifting uncertainties, under-resourcing, fear of infection and variable leadership. In addition, one US panellist described how nurses 'felt stressed from being separated from their families, while at the same time having to be the main support and substitute family for many of the patients they cared for'. This phenomenon of being separated from families and needing to 'create new routines by showering at work or undressing in the garage to limit COVID-19 transmission', as well as sadness and frustration over seeing 'patients die alone without family present' came from panellists in Australia, Denmark and New Zealand. In Indonesia high levels of anxiety disorders developed related to the pandemic and the 'emergence of fear in health workers that if they became infected with COVID-19 they could transmit COVID-19 onto family members.'

The literature and/or messages and announcements received echoed this sense of stress, anxiety and chaos. In the United States, it was reported that a 'study was conducted at the critical surge point of March 20th when the country shut down and New York City was under an avalanche of hospitalizations and deaths. The article summarized at that point in time the comments of a "dystopian world turned upside down" in the students' voices; however, a 'silver

lining' that they simultaneously voiced their re-commitment to choosing nursing as a career (Feeq, Mancino, Mooney, et al., [2021](#)). In New Zealand, a 'special edition in the Praxis Aotearoa Journal was published that had numerous manuscripts and reflective prose that highlighted the impact of COVID-19 on the nursing workforce in New Zealand (*Nursing Praxis in Aotearoa New Zealand*, [2021](#))' and in Jordan one paper 'described the status during the first month's (Al-Kazwini et al., [2021](#))', while another reported how 'registered nurses struggled on the front line to manage patients with COVID-19, placing them at increased risk for severe stress (Alhawatmeh et al., [2021](#))'.

Students were also impacted by stress and anxiety in all the countries represented. Panellists from the United States, Australia, Denmark, Indonesia, Jordan, Sweden and New Zealand used descriptors such as 'anxiety', 'fear' and 'uncertainty' to articulate how student nurses felt during this time. The 'students were extremely anxious about working with COVID-19 patients', had 'anxieties about access to PPE and LFT/PCR testing and vaccinations' and unsurprisingly had 'fears of being infected by COVID-19 patients'. Many 'first-year students felt isolated' and nursing students generally required 'extensions on assessments due to mental health concerns'. In England, panellists' general health and well-being were further impacted by contracting COVID-19, and many staff developed COVID-19 infections; 'for some more than once' and many family members had COVID-19 'some with tragic outcomes, particularly in the elderly population'.

##### 3.1.2 | Safe staffing and pay

In the United States, illness directly impacted safe staffing as 'the number of nurses available to work decreased as staff became ill.' This, coupled with the need for nurses to self-isolate and 'the number of very sick patients increasing', created a perfect storm. In New Zealand, many 'clinics had to shut their doors as staff became unwell', 'wards had to amalgamate due to limited staff as the nurses/doctors became unwell' and 'students became close contacts' needing to self-isolate. In the United States, at the time of this survey, many nurses with long COVID-19 had not returned to work. Panellists in Denmark, Ireland and Sweden reported on nurses' salaries. They stated that nursing has traditionally been 'seen as low-paid with unsociable hours despite nursing strikes for a higher salary'. More nurses replied, 'nothing has been done yet' and 'as a consequence, the pandemic has worsened this situation'. In Jordan, a panellist described how 'the private sector has been urged by the law to balance the salary cuts and downsizings according to the special Defence-Orders issued by the Government', but this was still under negotiation. In the United States, the pay disparity has had a 'long-term negative impact on nurses and staffing as morale declined among nurses'. The message was that nurses had shown 'maximum flexibility' and been integral to the COVID-19 response yet were still 'underpaid' and 'underappreciated'.

TABLE 2 Nursing workforce resilience in the face of COVID-19: summary of e-panel discussion.

Overarching theme	Key themes	Exemplar
Nursing workforce resilience in the face of COVID-19	Stress and anxiety	<i>There is burnout, and we are weary due to this long period of needing increased flexibility, increased workload and uncertainty for the nurse, even for some of those who have voluntarily moved to work in the high impacted COVID departments. (Denmark)</i>
	Safe staffing and pay	<i>We have shown maximum flexibility and still we are 'underpaid'. (Denmark)</i>
	Doing things differently	<i>Students' normal clinical experience of interviewing, consulting, assessing and planning their patients' care turned mainly into undertaking COVID-19 tests, PPE, N95 fit-testing, cleaning and being confronted with staff and patients who were stressed and/or unwell. (New Zealand)</i>
	Impact on research	<i>Positive aspects that have occurred as a result of the pandemic requiring different ways of working; an acceptance of the use of secure remote methods of data collection (e.g., via password protected video links such as Zoom and Teams). (England)</i>
	Impact on teaching and learning	<i>No face-to-face lectures: lecturers had to carry out the nursing learning process online either via Zoom, Google Meet or What's App. (Indonesia)</i>
	Impact on clinical practice	<i>Many nurses were hired and/or redeployed to work in the Managed isolation facilities (MIQs) and this provided new opportunities to develop a different set of assessment and management skills. (New Zealand)</i>
	Nursing made visible	<i>The Covid-19 pandemic provided a real picture of nursing contributions in responding to the pandemic. (Indonesia)</i>
	Lessons learned and looking to the future	<i>Although the workforce issues have been protected by the defence orders to some degree, lessons should be drawn from the experience for future outbreaks. (Jordan)</i>

### 3.1.3 | Doing things differently

Across all countries, panellists reported on how they had to 'learn to do things differently' considering COVID-19, which included student learning, research activities, teaching and clinical practice. In Ireland and New Zealand, reported changes to student learning included that final-year students started their internship earlier to meet the staffing needs of units, supernumerary clinical placements being cancelled, or students being re-deployed to undertake work directly related to COVID-19 (screening, contact tracing, etc.). In the United States, England, Indonesia and New Zealand, 'alterations to clinical practice activities, clinical placements and a constant everchanging clinical environment' meant that they had to be flexible and find different ways of doing things. Examples such as clinical practice activities being 'forced to be carried out online by discussing fictitious cases', placement changes when wards needed to be 'reconfigured to meet the influx of COVID-19 patients', and sometimes complete disruptions to student experiences where 'students would arrive for their shift to find the clinic was bolted shut'.

The reported benefits of these changes from panellists in England, Indonesia and New Zealand include the observation that 'both UG and postgrad students liked online or pre-recorded lectures as they did not have to commute, live in the city and could be with their families/children', 'students were allowed to carry out secondary research such as literature reviews' and 'students reported how they felt they had more space to study and in many ways, the lockdown provided them more opportunity to work on

their post-graduate courses and connect with others and focus on something other than COVID-19'. In contrast, the reported deficits in student learning from panellists in the United States, England, Indonesia and Jordan included that 'students did not have the same educational experiences' as students pre-COVID-19 because direct patient care was limited. Research students could not do research directly, which 'affected students research thesis and acquisition of research skills, and, because students were studying online, "student competency skills could not be achieved optimally" which "impacted on the students" ability to demonstrate what they had learned in clinical practice'. In England and New Zealand, it was reported that there were ongoing issues with 'making up placement hours to ensure students achieved the required hours to register', especially 'during the early lockdown phases of the pandemic' when 'nursing students were deemed to be non-essential workers.' In the United States, a panellist cited a study where students reported statistically significant lower levels of confidence in their new jobs directly corresponding to the amount of simulation versus real patient hours (Feeg, Mancino, & Goberdhan, 2021), whereas in Jordan, a panellist stated, 'a study from Saudi indicated a good willingness by senior nursing students and interns to treat and care for patients with COVID-19 (Alshutwi, 2021)'. It was further reported that in New Zealand, 'students withdrew from courses', describing that it felt like the only solution and 'allowed them to have control over at least one aspect of their life'. Other students and the new entrance to practice nurses described how challenging it was to keep up with post-graduate study 'while balancing increased demand in the workplace'.

### 3.1.4 | Impact on research

COVID-19 significantly impacted research activities in England and Ireland as panellists stated 'research was suspended related to lockdown and social distancing measures', with 'no access to patients, families or staff on paediatric units', 'project timelines were elongated', and it was 'difficult to engage the wider academic workforce in research projects as their teaching roles dominated' and 'research academics workload often increased with the emergence of demand for COVID-19-related research'. Panellists in England reported finding new ways to undertake research during COVID-19 such as having to 'review data collection methods to use online media', learning ways of gaining 'online informed consent', 'using video calling' and exploring 'remote ways of engaging with children to generate data'. In addition, 'interactive drawing sessions and the use of Zoom/Teams/equivalent' meant children could show their homes in a way similar to what it would be like if one visited. In England, one panellist stated the 'benefit of using video calls was that children are in complete control of where they point the lens and what they choose to share'. Panellists also commented how the COVID-19 pandemic 'forced us to learn how to use new platforms, engage online, attend conferences online, network online, share documents on-screen and mute/unmute ourselves (a skill we are all still working on, I believe!)'.

Further benefits reported from Australia, England and Ireland included how some parents preferred video calls over face-to-face meetings, especially when they had young children because this meant they did not need to organise childcare and transport. Another positive outcome of the pandemic included the opportunity to conduct paediatric and child health research about 'pandemics in general and especially COVID-19'. Further research activities reported by one panellist in England included the development of 'a survey to find out how the lockdowns had influenced parent's help-seeking for a sick or injured child (Neill et al., 2021), following concerns amongst health professionals about the fall in child presentations' which 'has been replicated in the Netherlands (Tan et al., 2021), Spain, Italy and Sweden'.

Some of the barriers reported by the panellists in Australia, Denmark and Sweden included research time being withdrawn from PhD-candidates who were needed on the wards, a 'lack of funding and grant money', 'extended research periods resulting in under-powered studies with increased dropouts', 'missing data' and comprehensive publication processes as 'journals almost exclusively focused on publishing research about COVID-19'. Overall, panellists from Australia, Denmark, Denmark, Ireland, Jordan and Sweden reported on innovative ways to continue research activities and opportunities for collaborative research across the globe where the sense was that 'international research collaborations seemed more significant' and where 'virtual meetings had become the norm'.

### 3.1.5 | Impact on teaching and learning

The panellists in Ireland and New Zealand described how teaching practices were 'impacted significantly on both UG and PG nursing

education programs' as 'all teaching moved online without much IT support'. One panellist in Indonesia stated that lecturers needed to be innovative as educating during COVID-19 'required a touch of technology and creativity'. In New Zealand, 'tertiary institutions were closed for business', and in England and Jordan, 'there was a shift from face-to-face to virtual meetings' and/or courses were required 'to move to exclusive online education'. In contrast, Sweden never had a lockdown, and schools remained open. Despite panellists in Jordan and England describing how the 'unexpected shift brought many challenges', they articulated how lecturers became more understanding and supportive of students with lots of 'flexibility provided with deadlines and submission of course work'. Strategies used by panellists from England and New Zealand that helped with the physical disconnection between lecturers and students included 'frequent virtual support meetings' and 'online writing sessions'. These offered 'a space to connect' with students and support them despite the distance. In addition, panellists described how teaching skills developed where lecturers had to learn 'more innovative enhanced online learning strategies'. Academics had no alternative but to learn how to work with 'online delivery and interactive media to deliver teaching activities'. Over time, this improved dramatically, and the benefits were more clearly seen.

### 3.1.6 | Impact on clinical practice

Clinical practice was reported to be impacted by all panellists, which was related partly to increased workloads, nursing shortages, the creation of COVID-19 wards and increased patient-staff ratios. Panellists gave examples of how patients on admission to the hospital needed to be screened for COVID-19 before being assessed and how this increased the workload and potentially disturbed the child and parent at the presentation. Panellists from the United States, England and Sweden reported that there were 'huge pressures in continuing to staff the units safely', and many children and young people nurses 'were sent to work in adult wards with critically ill patients, of whom many had severe COVID-19 infections.' In the United States and England, the hospitals continued to be 'challenged with the increased need to onboard replacement nurses as the "great resignation" across the nation emerged'. Hospitals in the United States were required to hire agency travel nurses to fill the nursing shortage for '13-week assignments in various healthcare institutions' or services relied on 'retired staff, unpaid students and nurses and midwives working extra hours'. Additionally, in the United States, the 'cost of hiring travel or agency nurses contributed to the financial stress healthcare organizations experienced' as travel nurses' salaries were higher than hospital staff. This, coupled with the stress of the pandemic, contributed to dissatisfaction and a subsequent exodus of hospital nurses who resigned from the profession and left to work as travel nurses themselves or retired. This exodus 'exacerbated an already existing nursing shortage'. Further to this, in the United States and England, there was a 'rapid change to the delivery of some services'. There were many examples of this

change to service delivery, including a switch to home care rather than ambulatory or outpatient care, clinics being delivered in a hybrid way, some in person and others virtual and in most countries, elective procedures were cancelled. In Indonesia, one panellist reported that one of the key challenges faced by Indonesian nurses was a knowledge gap regarding the care of patients across various levels of acuity, including 'moderate, acute, to critical levels', which required more specialist education and knowledge. The Indonesian government responded to this by providing 'wider access to education and training for nurses, especially the opportunity to access professional education such as emergency specialist education'. Panellists in England, Denmark and New Zealand reported on other 'positive consequences including hope, resiliency, new coping strategies and new opportunities for nurses and students to be COVID-19 testers, fit-mask testers and COVID-19 vaccinators'. One panellist described how the sense of 'moral duty lessened the impact of COVID-19' and that nurses felt 'proud of helping' during the pandemic. Panellists in England stated, 'nurses have developed greater skills in the digital world and are realising its potential for supporting patients'; COVID-19 'has led [nurses] to consider new ways of working which have the potential to enhance the way services are delivered in the future'.

### 3.1.7 | Nursing made visible

There was a strong thread among the panellists' responses that the COVID-19 pandemic revealed the true complexities and scope of nursing and provided an opportunity for the public to glimpse 'the real picture of nursing'. Through viewing their contributions in responding to the pandemic, panellists described how people have 'gained a higher insight in what nurses actually do and how important their jobs are'. Overall, the way nurses have responded to the pandemic, and the types of roles and care they have led and delivered, have raised the profile and awareness of nursing as a profession. Panellists in New Zealand, Indonesia, Ireland and England all commented on the government's recognition of 'nurses' contributions to healthcare' (albeit not reflected in nurses' salaries as mentioned above), and its impact on reducing the bureaucracy attached to the nursing recruitment process as well as providing job opportunities for new or recent graduate nurses (hospitals, clinics, vaccine centres).

### 3.1.8 | Lessons learned and looking to the future

The panellists were asked to comment if they had suggestions to mitigate the problems associated with the nursing workforce issues during the pandemic and provide comments, suggestions and/or recommendations. A panellist in Jordan described how although the 'vaccine provided some degree of protection and peace of mind to many, the gain from the restrictions during the previous two years provide a good lesson for future plans'. Panellists suggested several key recommendations in Ireland and Jordan, including strategic

workforce planning, such as finding ways to create 'less bureaucracy with recruitment' and providing 'better pathways for nurses to progress in clinical areas'. A panellist in England outlined how important it was to invest in alternative ways such as looking towards more 'flexible working strategies to enable staff to contribute in ways which do not damage their health'. Panellists in New Zealand argued that as a nursing body, we need to consider safe practices, including a review of organisational systems, policies and work culture. One panellist in England described the importance of ensuring 'that the level of demand does not result in staff being asked to work in settings for which they do not have the knowledge or skills'. In addition, there was a call from panellists in all nine countries for a review of support systems for nurses who continue to work in highly stressful, understaffed environments where the impact of the COVID-19 pandemic is still being felt.

A panellist in Ireland advocated for undergraduate nurses and new graduate nurses to receive better pay on 'the internship year, especially in cities where they face increasing rents, accommodation shortages and the cost of travel and parking', as well as 'better support and mentorship' and 'more flexible working hours'. The need for 'more flexibility with entry to nursing without losing quality' and a 'review of roles that could enhance nursing careers including using nurses' skills set to full advantage (including clinical academics/research)' were highlighted by panellists in Ireland and New Zealand as important considerations for the future. Panellists in Indonesia, Ireland, England and New Zealand identified that the next challenge for the nursing sector was to strengthen nursing leadership and commented that 'representation of nursing leadership at a higher level is still lacking' and that nurses have an essential role to play and significant contributions to make in terms of policy making and practice. Panellists from Indonesia, Jordan and Sweden articulated the significance of readying ourselves for the future by having a comprehensive workplace emergency preparedness plan designed to address health crises and epidemics. The panellists in Indonesia and Ireland highlighted how nurses are leading the way 'on more nurse-led initiatives and are much more vocal about overcrowding and lack of resources', as well as being 'integral to successful health promotion programs and education about coronavirus'. Despite similarities and differences in the management of the COVID-19 pandemic around the world, the panellists from all nine countries articulated how nurses and health care systems from all countries have been affected in multiple dimensions 'perhaps in different ways, but all as nurses'.

## 4 | DISCUSSION

This e-panel discussion helped capture international perspectives on how the pandemic impacted the nursing workforce and education in their countries and generated lessons for the future. The key theme, 'nursing workforce resilience in the face of COVID-19' reflects what has become a major global lesson for all nurses (clinicians, educators and researchers). Although many hardships have been encountered during the last 3 years, the international nursing

community has proven its capacity to learn and recover quickly from such difficulties (Kurtzman et al., 2022). Panellists' responses showed many similarities in experiences across the countries. The stress and anxiety, staffing, payment issues, and having to do things differently under strict measures reflected nurses' creativity, flexibility and the uncertainty experienced across the globe (Freeston et al., 2020). The effects of the pandemic on nursing practice, education and research were also evident in global comparisons (Turale et al., 2020). Many reports emerged discussing nursing practice and education before and during COVID-19 (Castro-Sánchez et al., 2021; Daly et al., 2020), and others provided their position concerning changes in practice (Al-Motlaq et al., 2021). The findings of this e-panel discussion are similarly reported in studies that explored nursing resiliency, burnout, anxiety, organisational support, restorative self-care and nurses feeling proud in rising to the challenge during COVID-19 (Heuston et al., 2021; Labrague & De los Santos, 2020; Leng et al., 2021; LoGiudice & Bartos, 2021; Rivas et al., 2021; Sierra-García et al., 2022).

Although the term resiliency was not directly used, it was evident when comparing the panellists' responses with the broader literature, that nurse researchers, clinicians and educators showed remarkable resiliency in the face of COVID-19. Resiliency is 'the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional and behavioral flexibility and adjustment to external and internal demands' (American Psychological Association, 2022). For nurses during the pandemic, resiliency has been shown to play a key role in mitigating psychological and moral distress, grief and fatigue (Heuston et al., 2021; Rivas et al., 2021; Sierra-García et al., 2022). Studies exploring the protective role of personal resiliency in the face of disasters and significant events such as disease outbreaks are not new (Duncan, 2020; Labrague et al., 2018), and in the context of the pandemic personal resiliency among nurses has been conceptualised as fundamental to not only adapting but prospering in the context of clinical practice (Cooper et al., 2020). This was highlighted by Labrague and De los Santos (2020), who explored personal resiliency and social and organisational support among nurses in the Philippines and found these factors to have a significant effect on the anxiety and stress levels of nurses during the pandemic (Labrague & De los Santos, 2020). Others suggested that clinicians and leaders in nursing should use posttraumatic growth as a framework to measure and articulate the implementation of job-specific resiliency interventions for nurses (Cunningham & Pfeiffer, 2022). A good example of this approach was piloted in a session called 'Fill Your Cup' where nurses joined a virtual session that included resiliency and resiliency boosting strategies and was based on the nurses' need to share their experience, grief and distress while working in critical care areas during COVID-19 (Heuston et al., 2021). In addition, Rivas et al. (2021) assessed burnout syndrome and resiliency in hospital-care nurses during the first outbreak of COVID-19 in Spain. They reported that agency nurses had a significantly lower score for emotional fatigue than permanent hospital staff and that emotional exhaustion correlated adversely with resiliency (Rivas et al., 2021).

Other stresses included caring for patients with COVID-19, being re-deployed, working in isolation, concerns about personal protective equipment shortage and usage, physical and emotional exhaustion, intensive workloads, fear of being infected and insufficient work experience with COVID-19 (Leng et al., 2021; LoGiudice & Bartos, 2021; Rivas et al., 2021) that the panellists in the e-panel discussion also voiced. Of interest, LoGiudice and Bartos (2021) reported on the self-care practices nurses in critical care areas employed as coping strategies to balance their lives during COVID-19, which included social, intellectual, spiritual, emotional and physical activities. The nurses further reported that they were proud to be nurses working on the frontline during COVID-19, felt empowered by the community's support and were pleased that nursing was becoming more visible to the public (LoGiudice & Bartos, 2021).

The panellists highlighted how the pandemic brought to the forefront the true complexities and scope of nursing, and the public was able to gain a deeper appreciation of what nurses do. Treston (2020) and Maxwell and Radford (2021) also expressed how the public became aware of the critical contribution that nurses made to global health which ironically occurred in 2020, the Year of the Nurse (Maxwell & Radford, 2021; Treston, 2020). They refer to the various roles nurses performed and how nurses globally could still provide the same personal touch and connection to patients in need during the pandemic when families could not be present (Maxwell & Radford, 2021; Treston, 2020). Treston (2020) refers to this as nurses having 'superpowers' (Treston, 2020) and how nurses were resilient and innovative by seeking the best person-centred solutions when faced with adversity. Similarly, Kells and Jennings Mathis (2022) report on how the pandemic raised nursing students' awareness about the importance of nursing and described how students were inspired by both the nurses who came out of retirement to help and nurses' dedication to long hours of relentless work on the frontline. Due to increased media visibility, nurses are now more valued by society and are getting some of the recognition and respect they deserve (Kells & Jennings Mathis, 2022).

Doing things differently came through as a common thread from the panellists responses and ranged from changes in practice to new ways of providing nursing education and conducting research. COVID-19 compelled nursing academics to race from face-to-face teaching to virtual learning and this came with many challenges and opportunities (Agu et al., 2021; Barrett, 2022; Head et al., 2022). The panellists describe how students and teachers had to adjust to a loss of in-person clinical experiences. This created uncertainty and creativity in the form of new clinical opportunities. These findings have been cited in international literature and not only highlight the adaptability and responsiveness of nursing as a profession (Agu et al., 2021; Kaveh et al., 2022; Tomietto et al., 2020) but also challenge us to consider distance learning and a blended approach as well as other innovations to teaching as the future in nursing education. The e-panellists described both positive and negative impacts on research activities in terms of opportunities for new methods of research and also the negative impact on workload, career intentions and mental health (Finn et al., 2022; Lokhtina et al., 2022).

The main lesson gained from the experience seems to be learning to attach importance to the commonalities and cooperative features of the global social system. There is a need to identify the lessons learned and a move for global nursing communities to work together in redefining their priorities and tasks to provide sufficient resources in education and practice to be fit for what may unfold in the future (International Council of Nurses, 2021a; Leaver et al., 2022). This includes investment in nursing education and improving the conditions of the current nursing workforce.

## 5 | STRENGTHS AND LIMITATIONS

Using an e-panel discussion approach has enabled the rapid capture of international experiences from panellists in nine different countries around the globe. Taking this discussion format avoided the inevitable considerable delays, which would have been ensured had a research methodology been chosen as ethical approval would have been required from all nine countries. This would have been prohibitively complex and time-consuming. Instead, we were able to rapidly gather and synthesise international experiences from experts in child and family centred care, generating insights that will consequently be available to inform future pandemic preparedness. Ethical principles were followed as detailed above. The data are qualitative in nature and is, therefore, not generalisable to every country around the world. However, the extent to which there were shared experiences supports the notion of a universal experience from which all countries can learn for the future.

## 6 | CONCLUSION

It is clear from the above discussion that the long-term impact of the pandemic is, as might be expected, universal. Although most of the reported effects are presented as negatives, there are some positive outcomes, predominantly in the greater adoption of electronic and virtual communication and in the way the value of nurses and nursing has been brought to the attention of the general public. It is evident that in all countries where members of the network participated, there were impacts on all areas of nursing, from practice to education, research and management. This discussion represents the viewpoints of the participating members of INCFCC at one time point. Extending this conversation via social media will enable us to share these impacts and broaden the discussion to include more countries, nurses and other health professionals, and, importantly, patients and the public.

## 7 | RELEVANCE TO CLINICAL PRACTICE AND RESEARCH

This panel highlights the importance of clinicians and academic nurses working together to learn from the present to plan for the

future. It also highlights the importance of translating research findings about COVID-19 to clinical nursing practice. In addition, future clinical initiatives should focus on supporting organisational and personal resiliency promoting and stress management interventions, disaster emergency preparedness training and shared decision-making between government and organisations to support the nursing workforce within diverse roles both during a disaster as well as in the recovery phase. Future research is required to explore the unique lived experience of nurses journeying through a pandemic, nurses' resiliency, staffing, organisational culture, professional well-being, organisational interventions and effective psychological and mental health support services.

## AUTHOR CONTRIBUTIONS

MF, VF, AMP, SN and MA conceived and designed the study. VF and AMP sent the web-based survey via email to the INCFCC members and collated the responses. MF and JB synthesised the responses and wrote the manuscript. SN, MA, GK and IC iteratively reviewed and edited MF and JB's analysis and write-up by providing constant support, guidance and recommendations throughout the write-up of the revised version. AMP reviewed the final draft. All authors give final approval for this version to be published.

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## CONFLICT OF INTEREST STATEMENT

The authors do not have any conflicts of interest to declare.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author but the data are not publicly available due to privacy and/or ethical and confidentiality considerations.

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