

Research paper

The impact of COVID-19 on the provision of bereavement support in Australian intensive care units: A national survey



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ABSTRACT

Background: Bereavement support is a vital part of caring for families when a patient dies in the intensive care unit (ICU). Previous research has demonstrated that while many ICUs provide some informal aspects of bereavement care, formalised follow-up programmes are uncommon. The impacts of COVID-19 on ICU-based bereavement support are currently unknown.

Objectives: The objectives of this study were to explore the current provision of bereavement support in Australian ICUs and identify the impacts of the COVID-19 pandemic on these services.

Methods: A cross-sectional exploratory web-based survey was used. The survey was distributed to one senior nurse in each public and private adult, paediatric, and neonatal ICU in Australia between April and July 2022. Descriptive statistics and reflexive thematic analysis were used to analyse the data. Ethical approval was received from La Trobe University.

Results: One hundred and four ICUs from 82 hospitals responded to the survey, with 36 units reporting a formal bereavement follow-up service. When compared to prepandemic levels, almost all of the common bereavement care practices explored in the survey were significantly reduced during the COVID-19 pandemic. Open-ended responses also demonstrated significant impacts of COVID-19 on bereavement care provision, particularly related to *Restricted family togetherness*, *Logistical Challenges*, and *Impacts on Staff*. Staff members reported adjusting care provision in response to these challenges by exploring *Alternative family communications*, *Facilitation of family togetherness*, and *Increasing family supports*.

Conclusions: Many of the common elements of ICU-based bereavement care were significantly reduced during the COVID-19 pandemic. In addition, the number of formal bereavement follow-up services in Australian ICUs remains largely unchanged since 2015. Ongoing research is needed to explore the long-term effects of these changes on staff and family wellbeing and on ongoing provision of ICU-based bereavement support.

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1. Background

Each year, around 200 000 adults and children are admitted to one of Australia's 193 public and private intensive care units (ICUs).¹ While the vast majority of patients survive their ICU admission and are discharged, approximately 5% of adults and 2% of children will die in the ICU.¹ These deaths can follow a variety of challenging-to-predict trajectories, including sudden unexpected

illness/injury, chronic illness with sudden and unexpected deterioration, through to chronic illness with anticipated deterioration (though not necessarily anticipated ICU admission).²

The ICU environment, with a focus on life-saving technology and advanced medical care, can have a significant impact on the experience of families, particularly during end-of-life and bereavement care. Events surrounding the end of life in the ICU remain significant for bereaved family members for at least 12 months after their loved one's death³ and can have lasting impacts on their bereavement experience. Bereavement is a significant risk factor for the development of post-intensive care syndrome-family (PICS-F),^{4–7} a well-recognised constellation of psychological conditions impacting

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family members of ICU patients, including clinically significant anxiety, depression, post-traumatic stress disorder (PTSD), and complicated grief.⁸ For instance, a study of bereaved ICU relatives in France found 36% of them to have depressive symptoms at 3 months, with 52% displaying symptoms of complicated grief and 43% displaying symptoms of PTSD 6 months after their loved one's death.⁹ Bereavement has also been associated with increased morbidity and premature mortality in surviving spouses and parents of deceased patients in the ICU, with psychological, behavioural, and physiological mechanism identified as potential targets for preventative interventions.^{10,11}

The provision of timely, ICU-based bereavement supports may help to reduce the risks of developing PICS-F for bereaved family members. Prior research has identified that engaging in positive coping behaviours early in bereavement to be associated with lower bereavement intensity at 6 months after the death of a family member.¹² In an intervention study, McAdam and Puntillo¹³ found that providing bereavement support to adults could significantly reduce the incidence of prolonged grief and may also reduce the risk of PTSD development. A recent systematic review also identified the benefits of ICU-based bereavement supports on the reduction of PICS-F conditions, although the authors noted that the impacts and benefits appear to depend on the type of support offered, with a combination of supports providing more positive outcomes than single-support items alone.¹⁴

Evidence suggests that families would like bereavement support from the ICU where their loved one died,^{4,6,7,15} although such supports are infrequently offered. Previous studies from Australia, the United States, and Europe suggest that whilst many ICUs will offer informal elements of bereavement support, such as viewing the deceased person in the ICU or providing information on hospital-based services; only around 30–40% of units had a formal bereavement follow-up service.^{16–19} ICU bereavement services most commonly include phone calls to family, offer of counselling services, facilitation of a visit to the ICU, the provision of condolence cards or information on community supports.^{16–19} However, these studies reflect the provision of ICU-based bereavement supports before the COVID-19 pandemic. Given the impacts on staffing, resources, and family presence in the ICU, COVID-19 is likely to have had a significant impact on the provision of ICU-based bereavement support.

The aim of this study was to explore the provision of bereavement support in Australian ICUs before and during one of Australia's COVID-19 outbreaks and to identify the impacts of the pandemic on these services. Findings from this study allow for comparison to findings from a previous review of Australian ICU bereavement support services undertaken by Mitchell et al.¹⁸ in 2015 to identify trends in changes to service provision over the last 7 years.

2. Methods

A cross-sectional exploratory web-based survey was administered between April and July 2022 to explore the provision of bereavement support services by Australian ICUs and the impacts of COVID-19 on the provision of these services. The Checklist for Reporting Results of Internet E-Surveys guided the reporting of this study as appropriate for email-based surveys.²⁰

2.1. Survey instrument

The survey tool developed and validated by Mitchell et al.¹⁸ that explores ICU bereavement service provision was used with permission. The original survey contained 32 questions across four domains: personal and unit demographics, model of bereavement

services, bereavement service workforce model, and service evaluation. To capture the impacts of COVID-19 on service provision, the survey was adapted as follows:

- A) the question about the current bereavement care elements was split into two parts—one question about services offered before the COVID-19 pandemic and one question on services offered during the COVID-19 pandemic;
- B) for all questions pertaining to the provision of individual bereavement care elements, inclusion of the response option “no, but this was offered prior to the COVID-19 pandemic”;
- C) inclusion of two open-ended questions focussing on the impacts of COVID-19 on end-of-life and bereavement care provision and on adjustments to end-of-life and bereavement care provision as a result of COVID-19.

The survey was hosted on QuestionPro²¹ and utilised adaptive questioning to ensure that participants were directed to the questions on bereavement service workforce model and service evaluation only if they had indicated that their unit offered a formal bereavement program.

2.2. Sample and recruitment

All adult, paediatric, and neonatal public and private ICUs in Australia were eligible for inclusion in the study. A list of 193 Australian ICUs was obtained from the Australian and New Zealand Intensive Care Society Annual Report,¹ and phone numbers were obtained from hospital webpages. An email explaining the study (including the voluntary nature, the anticipated time requirement, and how confidentiality would be maintained) including the electronic link to the survey was distributed to nurse unit managers or ICU educators through state-wide ICU networks in Queensland, New South Wales, and Victoria. For ICUs located in other states, or if a response was not received through the state-wide ICU networks, individual ICUs were telephoned by a member of the research team (AEB, LS, MR) between April and July 2022 and were asked to identify one senior nurse (nurse unit manager, associate/clinical nurse unit manager, ICU nurse educator, special interest group member, clinical nurse specialist) within the ICU who could receive the invitation email on behalf of that ICU. If no response was received, a reminder was emailed 2 weeks later.

2.3. Data analysis

Quantitative data were exported from QuestionPro to IBM SPSS Statistics for Windows (Version 27) (IBM Corp: Armonk, NY) for descriptive data analysis.²² Data are presented as mean (standard deviation), median (interquartile range), and proportions (%) as appropriate. McNemar's paired Chi-square test was used to compare the change in bereavement services from pre-COVID-19 to practices during one of Australia's COVID-19 outbreaks occurring at the time of the survey. All efforts were made in recruitment to ensure one response was received from each ICU in any hospital; therefore, hospitals with more than one survey response were assumed to relate to separate ICUs within the same hospital.

The open-ended questions were primarily analysed using reflexive thematic analysis.^{23,24} First, the responses to each open-ended question were read to get an overall sense of the data. Initial notes were made to identify key ideas and concepts. Inductive coding was primarily undertaken by AEB, with KR also exploring the data for additional potential codes or ideas. Once inductive coding was finished, AEB, MR, and LS collated similar codes into categories and themes that reflected the overall

qualitative and quantitative dataset, and then formulated codes into a thematic map of the data.

2.4. Ethics

Ethical approval for this study was provided by La Trobe University (Approval Number: HEC-21320). Before participation in the survey, participants were asked to read the plain language summary and indicate their consent to participate. All data were exported from QuestionPro and stored in a password-protected file in the University CloudStor system.

3. Results

3.1. Demographics

In total, 125 responses were received. Twenty-one invalid responses were not included in the final analysis as no study outcome data were provided in these responses. In total, 104 ICUs completed valid responses from 82 different hospitals that responded to the survey. As presented in Table 1, the majority of ICUs were situated in public hospitals (77%) across the east coast of Australia and primarily cared for adult patients (71%). Survey respondents were mainly nurse unit managers (37%), clinical nurse specialists (24%), or ICU educators (18%), with a small number of other respondents (e.g., clinical nurse consultants, research coordinators, social workers).

3.2. General bereavement care services

Before the COVID-19 pandemic, the most common elements of bereavement care reported included viewing the deceased in the mortuary (99%), staff debriefing (87%), and providing information on hospital-based support services (66%). Sending sympathy cards was the least-reported element of routine bereavement care, with only 18% of responding units reporting this practice. Only two (2%) of units responded that they routinely offered all six of the elements in question (See Fig. 1).

Table 1
Demographic and clinical specialities of survey respondents.

		N (%)
Intensive care unit type	Public hospital	80 (77%)
	Private hospital	21 (20%)
	Mixed public/private	3 (3%)
	Tertiary (level 3)	45 (43%)
	Metropolitan	32 (31%)
Patient type	Regional	27 (26%)
	Adult	74 (71%)
	Paediatric	5 (5%)
Australian State or Territory	Mixed	22 (21%)
	Did not state	3 (3%)
	New South Wales	38 (36%)
	Queensland	30 (29%)
	Victoria	22 (21%)
	South Australia	6 (6%)
	Western Australia	6 (6%)
Survey respondent's role	Australian Capital Territory	1 (1%)
	Tasmania	1 (1%)
	Nurse unit manager	38 (37%)
	Clinical nurse consultant	12 (12%)
	Clinical nurse/clinical nurse specialist	25 (24%)
	Nurse educator/clinical nurse educator	19 (18%)
	Research coordinator	3 (3%)
	Social worker	2 (2%)
	Other ^a	5 (4%)

^a Other included nurse practitioner (n = 1), directors (n = 1), did not state (n = 1), intensivist (n = 1), organ donation coordinator (n = 1).

The COVID-19 pandemic had significant impacts on the provision of bereavement care provided. The biggest change reported was the proportion of ICUs facilitating relatives viewing the deceased in the mortuary (40% reduction), followed by the inability to facilitate viewing in the ICU (27% reduction). The provision of information on both hospital- and community-based supports was also significantly reduced, although there was no reported change in the number of ICUs sending of sympathy cards during the COVID-19 pandemic compared to before (Fig. 1).

3.3. Formal bereavement follow-up service delivery

Of the 104 survey respondents, 36 units (35%) reported having a formal bereavement follow-up service (see Table 2). Among these 36 units, these services consisted of telephone calls (n = 29, 80.5%), formal counselling (n = 17, 47.2%), meeting medical staff routinely (n = 9, 25%), meeting medical staff on request (n = 21, 58.3%), and ICU family visit (n = 7, 19.4%). A small number of units (n = 3, 8.3%) reported that visits to the ICU were offered before the pandemic as part of the formal bereavement follow-up but noted they were not offered at the time of the survey.

The professional identity of the bereavement services coordinators among respondent units is presented in Table 2. Units reported that the service was coordinated by social workers (67%) and nurses (58%). Eleven (31%) of the ICU-based bereavement follow-up services had one staff member involved, 18 (50%) had two–three staff members, and two (6%) had four–six staff members involved. Four (11%) did not state the number of staff involved in their bereavement service. Three units (8%) reported that they rotate staff through their bereavement service, 21 (58%) have staff permanently in the role, and six (17%) reported a mixture of rotating and permanent staff. Fifteen (42%) respondents with a dedicated bereavement service reported that the role was conducted as a voluntary role, with only four (11%) reporting there was dedicated time to the role. Other respondents (n = 13, 36%) reported not knowing. Only 31% of respondents who had a bereavement service reported that staff involved in the service received extra training for the role.

Four (11%) respondents with a bereavement service reported that the service had been evaluated. Of these, three used verbal feedback from staff, three used verbal feedback from relatives, four used survey, and two conducted interviews. Practice changes as a result of these evaluations were reported to include introduction of routine calls to bereaved families, sending bereavement cards earlier, and changes to policy and guidelines. In addition, five respondents provided open-ended responses about elements of the service that they felt were most and least liked by families, where the most appreciated elements were reported to be a personalised phone call, blankets, bereavement boxes, and cards. The least appreciated elements by families were reported to be negative perceptions of social work involvement and premature provision of bereavement packs.

In addition, all survey respondents were asked if their unit was considering implementing additional bereavement services. Of the 77 respondents to the question, 31 stated their unit was not considering additional services at the moment, citing staffing and work capacity issues. Sixteen respondents were open to the possibility of more services but had no firm plans, and 10 respondents said their units were actively planning additional bereavement services or were looking at possible options. In addition, 11 respondents identified perceived barriers to bereavement service provision, including a lack of adequate staffing; not having any staff with a passion for bereavement care; resource limitations; and inconsistent care practices.

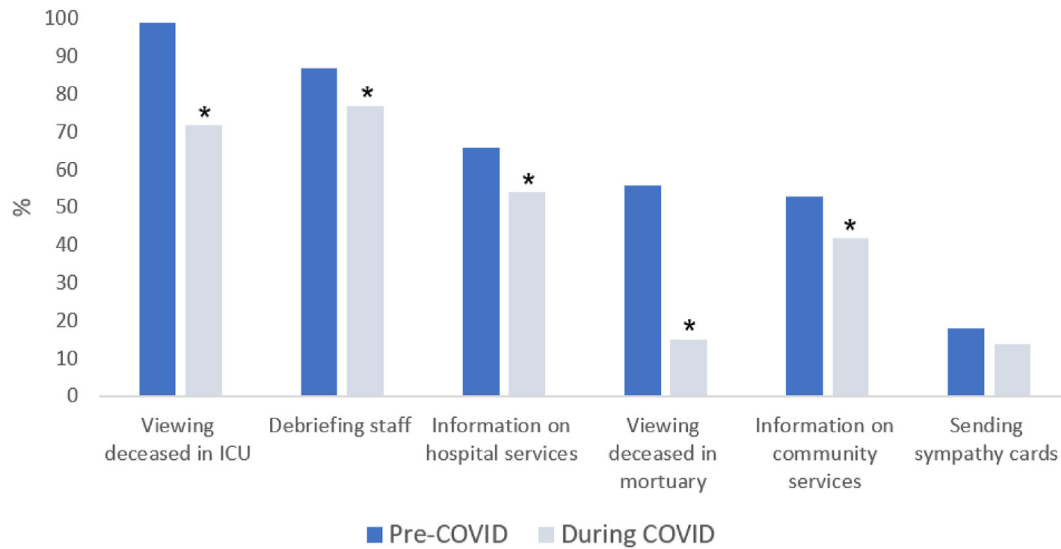


Fig. 1. Bereavement services reported provided prior to the COVID-19 pandemic and at time of survey (* pre vs post $p < 0.05$).

Table 2
Formal bereavement follow-up service reported delivery.

Elements	Units (N = 36)	
Bereavement services coordinator:	Social worker	24 (66.7%)
	Nurse	21 (58.3%)
	Medical professional	7 (19.4%)
	Allied health professional (not defined)	4 (11.1%)
	Pastoral care worker	2 (5.6%)
	Administrative staff member	2 (5.6%)
	Organ donor coordinator	2 (5.6%)
	Nobody specific	3 (8.3)
	Is a telephone call offered to families?	Yes
No		5 (13.9%)
Did not state		2 (5.6%)
Is a visit to the ICU offered to families?	Yes	7 (19.4%)
	No, but this was offered prior to the COVID-19 pandemic	3 (8.3%)
	No, this was never offered	23 (63.9%)
	Did not state	3 (8.3%)
Is formal counselling offered to families?	Yes	17 (47.2%)
	No, but this was offered prior to COVID-19	0
	No, this was never offered	16 (44.5%)
	Did not state	3 (8.3%)
Is a meeting with medical staff offered to families?	Yes, routinely	9 (25.0%)
	Yes, on request	21 (58.3%)
	No, but this was offered prior to COVID-19	0
	No, this was never offered	3 (8.3%)
	Did not state	3 (8.3%)
Are any other services or supports offered to families?	Yes	16 (44.5%)
	No	17 (47.2%)
	Did not state	3 (8.3%)

Abbreviation: ICU: intensive care unit.

3.4. Impacts of COVID-19

Two open-ended questions focussed specifically on the impacts of COVID-19 on service provision and the adjustments to care and

service provision that staff utilised as a result. Data regarding the impacts of COVID-19 on service provision generated three themes: *Restricted family togetherness*, *Logistical challenges*, and *Impacts on staff* (Table 3). Three themes were also generated regarding adjustments to care and service provision because of COVID-19, including *Alternative family communications*, *Facilitation of family togetherness*, and *Increased family supports* (Table 4).

Responses to the impact of COVID-19 on service provision generated the theme *Restricted family togetherness*, which highlighted the impacts of COVID-19 on the family's ability to be with their loved one in the ICU before, during, and after the dying phase as a result of both local visiting restrictions and broader national border closures. Survey respondents reported restrictions increased family suffering because families were unable to see the extent of the care provided before the patient transitioning to end-of-life care, or they had to witness their loved one's death via video link. The lack of physical contact with family members also made it challenging for ICU staff members to assess the family's emotional responses and needs in order to provide adequate support.

The second theme on the impact of COVID-19 on service provision, *Logistical challenges*, described the multitude of obstacles that ICU staff members faced in attempting to provide end-of-life and bereavement support in the ICU during the COVID-19 pandemic. For example, respondents reported almost daily changes to hospital policy around the COVID-19 pandemic, which led to confusion and inconsistency related to family visitation. Respondents also identified significant challenges in applying for exemption requests for families to visit, which meant some families were unable to be present with their loved one when they died.

Finally, *Impacts on staff* demonstrated the significant personal toll that staff endured when providing end-of-life and bereavement care in the ICU during the COVID-19 pandemic. From a practical perspective, staff shortages and increased workloads associated with using personal protective equipment (PPE), managing visitation exemption requests, and facilitating telehealth placed a significant physical burden on the staff. Simultaneously, enforcing visitor restrictions during the end of life, communicating to families via telehealth, and offering emotional support via phone was exceptionally distressing for survey respondents, who described the experience as some of the worst of their healthcare careers.

Three themes were also generated from the question exploring adjustments to care provision because of the COVID-19 pandemic

Table 3
Impacts of COVID-19 on the provision of end-of-life and bereavement support services.

Theme	Description	Illustrative quotes
Restricted family togetherness	<p>COVID-19 had significant impacts on the ability of families to be with their loved one in the ICU. This was due to both localised visiting restrictions (including time limitations, limitations on the number of visitors, or the complete absence of visitors) and broader national border closures that limited family travel. The inability to be present in the ICU with their loved one impacted families in a number of significant ways: They were not able to visit the ICU unless their loved one was dying, which meant they did not see the care provided in the lead-up to the patient's death. Logistical challenges around exemption requests often meant that some patients died alone, or families had to say goodbye over a video call. Often, staff members were also unsure how to provide bereavement care or support when they were unable to meet families in person to gauge their emotional responses or needs.</p> <p>In addition, the use of PPE restricted family togetherness even when families were physically present in the ICU. Face masks, gowns, and gloves restricted the ability of families to touch, hug, lie with, kiss, or be physically present with their loved one. These restrictions were seen to increase the suffering and distress of the family members and could also lead to frustration and anger on the part of the family.</p>	<p>“With lockdowns, travel restrictions, visiting limitations, and vaccine requirements, many families faced difficulties in being able to be present and involved in end of life of their families/friends.”</p> <p>“It has been difficult due to the restriction on visitation prior to end-of-life decision—family may not have been able to see family member for weeks and then attend at end of life—very confronting for them.”</p> <p>“The most difficult part was that with family were unable to visit (unless patient was at end-of-life stage or rapidly deteriorating) so they didn't see the decline or the efforts to save them.”</p> <p>“It had been really hard to support grieving family and know their emotions and provide support as we were unable to meet them in person.”</p> <p>“The barriers of processes and PPE in allowing the family physical contact, e.g., cuddles, lying bedside patient, allowing family members to sit with patient, freedom to visit.”</p>
Logistical challenges	<p>COVID-19 caused significant logistical challenges for the staff, which impacted on their ability to provide end-of-life and bereavement care. This was primarily seen across four key areas:</p> <ul style="list-style-type: none"> • Changes to the physical environment of the ICU, such as through a loss of physical meeting spaces, waiting rooms, and storerooms, or through moving the ICU to a temporary location. • The use of PPE, which was cumbersome, difficult, and intrusive at the end of life and which occasionally limited staff presence in patient rooms. • Frequent changes to hospital policy around COVID-19, leading to variations in practice and frustration for staff. This was particularly challenging with respect to the need for and process of applying for exemption requests to allow family presence during the end-of-life care. • Challenges in communicating with families were common, largely because families were not able to be present to receive medical updates or ask questions about their loved one's care. This was particularly challenging when providing bad news. The use of alternative communications strategies significantly increased staff workload. 	<p>“We had to expand the ICU beyond our unit and open a satellite ICU in the recovery unit. This impacted usual routine, accessibility for families and access to resources usually used for this type of work (i.e. meeting rooms etc).”</p> <p>“Obvious changes to environment related to COVID (wearing of masks and PPE) limit therapeutic touch by staff and comfort for visitors (crying and runny noses into masks).”</p> <p>“Confusion on what was able to be offered and how, inconsistencies between executives, and NUMs (our deaths don't only occur in ICU). Families definitely got inconsistent care.”</p> <p>“End-of-life/bereavement care was complicated by need for completion/processing of exemption request for visitors forms.”</p> <p>“Constant phone updates, FaceTime helped but time consuming when you have a busy critically ill patient.”</p> <p>“Unable to provide that social/emotional support that is really only available in person. Phone calls do not provide the same level of support as in person.”</p>
Impacts on staff	<p>COVID-19 had significant impacts on the nursing staff in the ICU in a number of ways. From a practical perspective, the cumulative impacts PPE, staff shortages due to illness or furlough, logistical issues such as exemption requests, and the increased use of telehealth, significantly increased the workload for staff during the COVID-19 pandemic.</p> <p>In addition, staff members often experienced stress and distress when providing end-of-life care to patients, especially when this was done via phone/video, or when they had to enforce visitation restrictions or provide increased emotional support to families.</p>	<p>“Staffing shortages through furlough put pressure on the system, affecting care at times.”</p> <p>“Staffing shortages—at times, unable to provide our full attention to the dying patient and their families due to staffing allocations and skill mix.”</p> <p>“Not getting any time to do bereavement follow-up as short staffed and too busy.”</p> <p>“Witnessing and supporting these restrictions has been extraordinarily distressing and mentally exhausting for nursing staff. Career-ending for some. The impacts of this will be felt by both staff and families of those who have deceased during the pandemic forever.”</p> <p>“Watching grieving families online was difficult.”</p> <p>“Enforcing visitor restrictions during lockdowns was by far one of the worst experiences in my nursing career.”</p>

Abbreviations: ICU: intensive care unit; NUM: nurse unit manager; PPE: personal protective equipment.

(Table 4). The first theme, *Alternative family communications*, identified the various ways that survey respondents attempted to provide updates to families, answer questions, and hold family meetings to develop plans of care. Most commonly, respondents reported using video communication technology such as Microsoft Teams, Zoom, or FaceTime and arranged to connect with families at least once a day. Survey respondents also described several challenges associated with these alternative high-tech communication strategies, including its introduction to family members with lower

information technology literacy and finding mutually agreeable times to use the video communications tools.

In the second theme, *Facilitation of family togetherness*, respondents described ways they attempted to support family visitation and togetherness during the end of life, despite ongoing visitation restrictions. Respondents described spending significant amounts of time applying for exemptions to allow family members to visit the ICU and then supporting the family's use of hospital-supplied PPE during the visit. They also described supporting

Table 4
Adjustments to care delivery because of COVID-19.

Theme	Description	Illustrative quotes
Alternative family communications	Visitor restrictions posed a significant challenge for communicating with families. Staff members relied on phone calls and a wide range of audio–visual technology as their main form of communication with families, aimed at providing updates, holding family meeting, and answering questions. Most commonly, respondents mentioned the use of MicrosoftTEAMs Skype, Pexip, Webex, or Zoom to facilitate video conferencing. The frequency of contact with families increased to daily or multiple times per day. Communication with family members often needed to be prearranged to ensure everyone was available.	“Relatives got daily phone updates after the ward rounds from the medical team.” “We facilitated daily calls with the medical staff and patient via facetime; we would book-in times that we would know we had all the family available.” “We provided iPads for video calling purposes, and even if the patient was unwell, regular updates and video calls were made to keep the family updated.”
Facilitating family togetherness	Staff used a number of methods to increase family togetherness, despite the impacts of COVID-19 and visitor restrictions: <ul style="list-style-type: none"> • Staff members supported virtual visiting practices, enabling families to visit with their loved one via video calls. • Staff members often applied for exemptions to allow family to be present in the ICU, particularly at the end of life. • Staff members supported families to use PPE in order to visit the ICU, and monitored donning and doffing to ensure safety. 	“Increased the number of webcams available around the unit to increase access of families to their loved ones.” “We have purchased iPads facilitate virtual visiting.” “Made effort to arrange visitor exemptions where possible.” “Providing PPE to a limited number of family members so they can see, speak to, and spend time with their loved ones.”
Increased family supports	Staff members recognised that as a result of limited visitation numbers and limited time from ICU nurses, families did not receive the usual amount of support from the hospital and from their family compared to pre-COVID-19 levels. To compensate, they attempted to increase support provided by the ICU in the following ways: <ul style="list-style-type: none"> • Utilising social workers to support daily contact for families. • Engaging pastoral care workers to provide emotional support to families. • Increasing memory-making activities where possible. 	“Gained extra pastoral care support for family members who may be staying with patient as they no longer have the ability to bring their usual support systems with them.” “Increased use of social work services.” “More emphasis on memory making.”

Abbreviations: ICU: intensive care unit; PPE: personal protective equipment.

‘Virtual visiting’ wherever possible, setting up webcams and supporting patients and families to interact via videocall as much as possible.

Finally, respondents also *Increased family supports* during the COVID-19 pandemic, particularly during end-of-life and bereavement care. They described the awareness that visitation restrictions and increased clinician workloads had impacted the support that families would usually receive from the nursing staff. To compensate, respondents described strengthening partnerships with social work and pastoral care to support the family and engaging in increased memory-making activities where possible.

4. Discussion

The findings from this study provide unique insights into the current state of ICU-based bereavement support service provision in Australia, and the impacts of COVID-19 on these services. We found that while many units offered informal bereavement support, such as viewing a loved one in the mortuary or provision of information on hospital- and community-based bereavement services, there were significant reductions in the delivery of these supports during the COVID-19 pandemic. Perhaps unsurprisingly, given the severe visitation restrictions in place in most Australian hospitals,²⁵ the largest disruptions to end-of-life and bereavement service delivery centred around viewing a deceased loved one in the ICU or the mortuary. However, a drop in the provision of information on hospital- and community-based bereavement services was also identified. While this may be partially due to the increased workloads of ICU staff and the challenges associated with video communication technologies,^{26–28} it is also possible that many of the information brochures usually given to families in the ICU were only provided in a paper-based format. While sourcing digital copies of these information brochures might not have been a

priority for staff members during the COVID-19 pandemic, we recommend that ICUs develop digital versions of their family bereavement information packages, where possible, to increase access to information, moving forward. In addition, future research should investigate whether the identified changes to the provision of ICU-based bereavement support reported from our study have become permanent or whether a pre-COVID level of service has been re-established.

We also found minimal change to the number of units offering formal bereavement follow-up services in the last 7 years, with our results demonstrating an overall increase of only two additional services since the last national survey was conducted by Mitchell et al.¹⁸ in 2015. Concerningly, we also found that only 10 out of the 104 respondent ICUs reported that they were actively considering the establishment of new bereavement follow-up services. Given the potential benefits that bereavement follow-up has for families,^{12–14} further research is needed to explore factors related to successful implementation and sustainability of current bereavement services to inform future service planning and delivery as well as the development of guidelines for successful models of care. Given that a high percentage of bereavement services included in this study were primarily managed by social workers, we strongly recommend any future nursing research be conducted in collaboration with experienced social worker professionals to ensure all aspects of service provision and management are explored and considered.

Our findings also highlighted a lack of dedicated nursing staff time and training for bereavement service provision, with only 11% of units providing dedicated staff time on the bereavement service and 31% offering specific training to staff who engage in the provision of support. This is particularly concerning, given that Mitchell et al.¹⁸ previously found that 70.5% of units offering a dedicated bereavement service provided additional training to staff members to support them in their roles. Although it is highly likely

the COVID-19 pandemic impacted the provision of dedicated time and education for ICU-based bereavement support, challenges surrounding sufficient time and skill development for nursing staff working in this area have been reported for decades.^{29–34} In order to enhance nursing leadership in this area and meet the needs of bereaved families, critical care postgraduate training programs and local hospital training should consider including an increased focus on end-of-life and bereavement care.³⁵ In addition, changes in workload models for nursing staff allocations and an increase in bereavement care funding are needed to protect dedicated nursing time for bereavement care.

Many of the qualitative findings in our study highlight the importance of staff support for families during end-of-life and bereavement care and the lengths that nursing staff will go to in order to facilitate family presence at the bedside. During the COVID-19 pandemic, visitor restrictions prevented family presence at the bedside and led to significant impacts on the perceived wellbeing of the family.^{36–38} The implementation of ‘virtual visiting’ and video communication options provided an alternative way to facilitate family togetherness; however, the practices have received mixed responses from both family and staff with regard to perceived benefits and harms.^{36,38–40} Although most of the world has moved towards ‘COVID normal’ and family presence in the ICU setting is once again supported, barriers to physical presence continue to exist for families in regional or remote locations or where disability, caregiving, or work demands exist. Moving forward, we suggest that the options for virtual visiting and video communication that were adopted during the COVID-19 pandemic should continue to be offered to increase family access to the ICU setting, especially in end-of-life care practices. Further research is needed to explore the impacts of virtual visiting on the psychosocial well-being of both the patient and their family during and after their ICU stay, particularly when used at the end of life. In addition, research is also needed to explore the most feasible means of providing these services without significantly impacting staff workload and emotional wellbeing.

Finally, our findings also highlighted the significant trauma that ICU nurses experienced when providing end-of-life care to patients during the COVID-19 pandemic. Staff members recounted the events around enforcing visiting restrictions and holding telephones to a dying patient’s ear as some of the worst experiences of their healthcare careers. These findings add weight to the growing body of literature on staff trauma caused by working in the ICU during the COVID-19 pandemic, particularly during end-of-life care, and the isolation, distress, and emotional burnout experienced as a result.^{26–28,41,42} Whilst there has been some focus on supporting staff wellbeing during the pandemic,^{43–45} this should continue to be prioritised and maintained moving forward to mitigate the cumulative, ongoing effects of COVID-19 to support a mentally healthy workforce. In addition, further research on the short- and longer-term impacts of the COVID-19 pandemic on staff experiences will be important to understand the ongoing impacts on staff retention and workforce stability.

4.1. Limitations to the study

Although the response rate of 53% is lower than that reported by Mitchell et al.,¹⁸ our sample includes a mix of public and private ICUs, and demonstrates good representation from both metropolitan and regional units. In addition, several hospitals provided more than one response to the survey. As we made significant effort to ensure only one response per ICU, these were treated as unique responses from different ICUs within the same hospital. It is also important to note that the survey responses offer a snapshot of the bereavement care services at the time of the survey and may not

represent practices occurring within the current COVID-19 guidelines. Finally, the data in this survey are self-reported and may not always accurately reflect practices within individual units, particularly if differences in local definitions of ‘bereavement service’ exist.

5. Conclusions

The findings from this study offer important insights into the current landscape of ICU bereavement care in Australia and the impacts of the COVID-19 pandemic on the delivery of these services. Although the number of dedicated bereavement services has remained static since the last national survey was conducted, the COVID-19 pandemic has had significant impacts on the delivery of most of the individual elements of bereavement care in the ICU setting. Ultimately, fostering a compassionate and comprehensive approach to ICU bereavement care, informed by ongoing research and staff education, is essential for addressing the needs of grieving families and ensuring the delivery of high-quality services in the face of the lasting impacts of the COVID-19 pandemic.

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Credit authorship contribution statement

The author contributions as per CRediT are as follows:

Ashleigh E Butler: Conceptualisation; Data curation; Formal analysis; Investigation; Methodology; Project administration; Resources; Supervision; Visualisation; Roles/Writing—original draft; Writing—review & editing. **Melissa Riegel:** Conceptualisation; Data curation; Formal analysis; Investigation; Methodology; Resources; Roles/Writing—original draft; Writing—review and editing. **Lisa Speedie:** Conceptualisation; Data curation; Formal analysis; Investigation; Methodology; Resources; Roles/Writing—original draft; Writing—review and editing. **Kristen Ranse:** Conceptualisation; Data curation; Formal analysis; Methodology; Resources; Supervision; Roles/Writing—original draft; Writing—review and editing. **Thomas Buckley:** Conceptualisation; Data curation; Formal analysis; Methodology; Resources; Supervision; Visualisation; Roles/Writing—original draft; Writing—review and editing.

Conflict of interest

AEB, MR, LS, KR, and TB have no conflicts of interest to declare. Associate Professor Thomas Buckley is an Editor with Australian Critical Care. In line with the current policies, this manuscript has been managed through the peer-review process, during which, Associate Professor Buckley has been excluded from any discussion and decisions in relation to this article.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author, AEB. The data are not publicly available due to restrictions related to ethical approval.

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