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# Family members' experiences with intensive care unit diaries

Vincenzo Bosco<sup>1,2†</sup>, Caterina Mercuri<sup>2†</sup>, Rita Nocerino<sup>1,3,4</sup>, Michał Czapla<sup>5,6,7\*</sup>, Izabella Uchmanowicz<sup>8,9</sup>, Rocco Mazzotta<sup>1</sup>, Vincenza Giordano<sup>10</sup> and Silvio Simeone<sup>2</sup>

# **Abstract**

**Background** The admission of a family member to intensive care represents an emotionally complex experience, often characterised by anxiety, stress and uncertainty. ICU diaries, compiled by nurses and family members, have been proposed as a useful tool to support caregivers' psychological well-being, improve communication and humanise the care environment. The aim of the study was to describe the content of ICU diaries filled out by family members to explore the experiences and meanings attributed to the diaries.

**Methods** The study used a qualitative approach based on thematic analysis of diaries completed by 16 family members of patients admitted to intensive care units. The data were coded and analysed to identify recurrent themes and to understand the emotional and psychological experience of the family members.

**Results** Three main themes emerged from the analysis: time, the family context (including maintaining contact with the patient, the relatives'emotions, fear of suffering, spirituality, the person at the centre of the relatives' lives and connection with the outside world) and the usefulness of the diary in understanding the care process. The diaries facilitated the continuity of the affective bond with the patient, offered a space to express emotions and improved communication with healthcare professionals.

**Conclusion** The results highlight the value of ICU diaries in supporting family members during the patient's admission, reducing stress and strengthening the relationship with the healthcare team. The practical implications suggest the importance of promoting the structured use of diaries to foster more empathetic and family-centred care.

Clinical trial number Not applicable.

**Keywords** Intensive care units, Family relations, Diaries as topic, Psychological stress, Post-Intensive care syndrome

<sup>†</sup>Vincenzo Bosco and Caterina Mercuri contributed equally to this work.

\*Correspondence: Michał Czapla michal.czapla@umw.edu.pl

Full list of author information is available at the end of the article



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#### Introduction

The experience of having a loved one admitted to the Intensive Care Unit (ICU) presents profound challenges for family members, who often encounter emotional distress and uncertainty.

The set of psychological complications (anxiety, depression, acute stress disorder, post-traumatic stress disorder) in addition to the perceived pain of the family member undergoing critical care is called postintensive care syndrome family (PICS-F) [1]. PICS-F could negatively influence the patient's improvement [2]. In addition to psychiatric disorders, families experience fatigue, sleep disturbances during the post-intensive care period and financial and socio-economic insecurity [1, 3].

The use of diaries in the ICU has emerged as a promising intervention to support the psychological recovery of both patients and their families [4]. These diaries, maintained by nurses, family members, or patients themselves, facilitate the reconstruction of events experienced during ICU hospitalization, thereby mitigating post-traumatic stress disorder (PTSD) and other psychological issues, such as anxiety and depression [5, 6].

For patients, the absence of memories during ICU hospitalization correlates with heightened PTSD symptoms [6, 7]. Diaries provide a chronological narrative, enabling patients to process traumatic experiences and enhance post-hospitalization quality of life [6, 7]. For family members, contributing to these diaries serves as a therapeutic outlet, fostering emotional expression and maintaining a sense of connection with their loved ones during times of limited communication. These diaries also help alleviate emotional stress and improve communication with healthcare providers [4, 6, 7].

The ICU diary can improve emotional support and strengthen relationships between patients, families, and healthcare professionals, encouraging a personalized and empathetic approach to care [4, 8]. However, the specific role of family-authored notes in ICU diaries remains underexplored [4]. Preliminary studies indicate that these narratives offer unique insights into the emotional states, coping strategies, and care perceptions of family members [4, 7, 8].

The literature shows a growing interest in the study of ICU diaries, but studies remain limited in Italy, particularly those examining the impact of diaries authored by family members [4, 7].

The aim of this study is to describe the content of ICU diaries written by family members to explore their experiences and the meaning they attribute to these diaries.

#### **MethodS**

## Study design and team characteristics

This qualitative study employs an interpretative narrative methodology [9], which enables the integration

of diverse events, circumstances, and impressions into coherent narratives, with the ultimate goal of assigning them meaning [10, 11]. The study was conducted in the General Intensive Care Unit at the "Renato Dulbecco" of Catanzaro. Enrollment of patient family members lasted from March 2024 to October 2024. This approach allows for the evaluation and organization of human experiences into comprehensible and interpretable episodes by researchers [12]. Narratives, constructed through discourse, reflect the narrator's choices of content and language [13]. The application of an interpretative method facilitated the exploration and analysis of social realities from the participants' perspectives [12]. The study adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines [14].

#### Sample

This study is part of a broader investigation involving ICU patients, family members, and healthcare professionals [4]. In this investigation, diaries were used as a supportive intervention to assist both ICU survivors and their family members in the recovery process [4].

Diaries were used as a supportive intervention to assist ICU survivors and their families in recovery [15, 16]. In this study, the content analysis of the diaries focused exclusively on those written by family members of patients admitted to the ICU. A convenience sampling approach was used.

In this study, the diaries consisted of a set of blank pages bound with a mechanical spiral. On the first page, clear and concise instructions were provided to guide contributors on how to write in the diary, emphasizing the use of simple, accessible, and direct language. Participants were invited to write freely, to date and sign each entry, and to express thoughts, memories, emotions, or reflections concerning the patient's condition and their own experience. The diaries were kept in the patients' rooms and were easily accessible to contributors, including family members, friends, and healthcare professionals. The structure and purpose of the diary was inspired by previous evidence showing that such tools can support psychological recovery, promote humanized care, and enhance emotional communication between families and the ICU team [5, 4]. Copies of the diaries were given to patients upon discharge or to families in case of patient death.

The inclusion criteria were age ≥ 18 years, ICU stay of a family member > 72 h, proficiency in Italian, and provision of informed consent The exclusion criteria included pre-existing psychological diseases, age ≤ 18 years, and lack of knowledge in the Italian language.

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#### Data collection

Each diary was assigned a unique identification code, beginning with the letter "D" followed by a sequential number from 01 to 13. To ensure data anonymization, the researchers removed all direct identifiers, thereby creating a "clean" dataset. This dataset contained no information that could potentially identify participants, such as names or addresses; such identifiable information was stored separately in a secured and encrypted file. Participants were instead identified through alphanumeric codes generated using a validated alphanumeric code generator [17]. Diaries were gathered and included in the study until data saturation was reached.

The thematic analysis was carried out in strict accordance with the methodology proposed by Braun and Clarke (2006). The process followed several essential steps: first, the researchers engaged in repeated readings of the data to gain familiarity. Then, initial coding was performed to identify key topics, followed by the recognition of broader conceptual themes and emerging subthemes. These themes were systematically reviewed and validated through discussions with the research team. A thematic map (Fig. 1) was subsequently developed to provide a visual representation of the identified themes. To ensure a comprehensive and accurate categorization, all diaries were carefully re-examined. Additionally, after a set period, nurses revisited the transcriptions to verify their clarity, coherence, and precision. Finally, the

transcribed content was discussed with both the research team and family members to validate findings and ensure alignment with the intended interpretations.

#### Data analysis

Data analysis was carried out through a thematic approach conducted by two independent coders with extensive experience in qualitative research. Two researchers had no contact with family members and/ or hospitalized patients. Each coder examined and coded the diaries independently, ensuring the inclusion of different perspectives in the identification of themes and sub-themes. Subsequently, the coders compared their respective codings and resolved any discrepancies through discussion and critical comparison. Initially, the results were analysed and confirmed by the study participants in their mother tongue, Italian, before being translated into English. The translation was carried out following the World Health Organisation (WHO) guidelines for the intercultural and interlingual validation of instruments to ensure the fidelity of the original meaning of the data. In line with WHO recommendations, the translation process prioritised conceptual equivalence over mere literal transposition, thus ensuring the preservation of the content and meaning of the data [18]. The study followed scrupulously the criteria of reliability, credibility and confirmability as defined by Lincoln and Guba [19]. In order to further consolidate the credibility

# Thematic Map – Family Members' Experiences with ICU Diaries

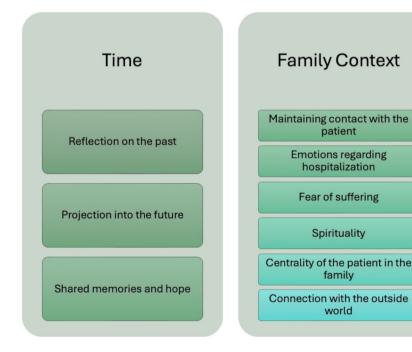




Fig. 1 Thematic map

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**Table 1** Socio-demographic characteristics of participants

CODE	GENDER	AGE	NUMBER OF CHILDREN	RELATIONSHIP TO PATIENT	DAYS OF FAMILY HOSPITALITY	DAYS OF CONNEC- TION TO ASSISTED MECHANICAL VENTI- LATION BY PATIENT
AZ01	F	46	2	Daughter	30	138
BY02	F	38	2	Daughter	11	81
CX03	M	55	3	Son	7	70
DW04	F	53	2	Wife	18	140
EV5	M	39	2	Son	63	147
FU06	М	67	4	Husband	10	98
GT06	М	61	3	Cousin	18	112
HS07	F	51	3	Wife	4	24
IR08	М	44	2	Son	19	72
JQ09	М	47	2	Grandson	16	43
KP10	F	35	1	Daughter	16	31
LO11	F	24	0	Daughter	21	44
MN12	F	29	0	Daughter	5	48
NM13	M	39	1	Cousin	10	72
OL14	F	44	3	Sister-in-law	11	83
PK15	F	31	2	Daughter	14	70

**Table 2** Summary of main themes and frequency across ICU diaries

Theme / Sub-theme	Num- ber of Diaries (N=13)
Theme 1: Time	11
Reflection on the past	11
Projection into the future	10
Shared memories and hope	11
Theme 2: Family Context	13
Maintaining contact with the patient	12
Emotions regarding hospitalization	13
Fear of suffering	11
Spirituality	9
Centrality of the patient in family life	13
Connection with the outside world	10
Theme 3: Usefulness of the diary in care understanding	12
Communication tool between family and staff	12
Better understanding of clinical information	11
Humanization of care and emotional reassurance	10
Summary of the main themes and sub-themes identified thro matic analysis of ICU family diaries, and the number of diaries which each theme emerged.	_

and accuracy of the thematic analysis, the preliminary results derived from the analysis of the diaries written by the family members were presented to a subgroup of participants for evaluation. This process, similar to participant validation, allowed the family members to examine the themes and interpretations, verifying that they authentically represented their experiences and the original meaning of the diaries' contents. The comments and suggestions received were incorporated into the final

analysis, thus contributing to the reliability and confirmability of the study.

#### Results

Our sample consisted of 16 participants (who wrote in 13 diaries) aged between 24 and 67 years, with a degree of relationship that included 9 children, 3 spouses, 2 cousins, 1 Sister-in-law and 1 nephew, whose family members were hospitalised for an average of 17.06 days. The main socio-demographic characteristics of the sample and hospitalized subjects are reported in Table 1.

Three main themes emerged from the analysis: (1) time, (2) the family context, which contains 6 sub-themes, (3) the usefulness of the diary in understanding the care pathway. Table 2 summarizes the main themes and sub-themes, along with the number of diaries (N=13) in which each was identified.

# Time

Time is constantly present in the family members' writings, often with memories of the past projected into the future. In all the diaries there are descriptions of moments experienced by the family member writing with the person in intensive care. These memories are described in detail and all project a desire to relive similar or completely different memories in the future, after the hoped-for recovery.

NM13: "just yesterday, when things didn't seem to be going well here, I don't know why, but it reminded me of the trip we made to Portugal...we really looked like two homeless people and yet so much laughter....the beers at sunset with the hope of making new friends, the laughter at the language and communication problems.......but

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with gestures we always managed to make ourselves understood....remember you said the President of China would listen to you and understand....well come on, we'll have to go to him and see if he can understand us...".

MN12: "Mum, do you remember when you used to hold my hand and comfort me when I cried, whether it was because of a fall or something else, well come on, I need, I desperately need you to hold my hand and guide me again..."... I need to be comforted by you..."

#### Family context

# Maintenance of contact with the patient

The use of the diary seems to help family members to maintain some kind of relationship with the inpatient, even when it seemed impossible for the family members themselves due to the condition of the inpatient. Moreover, getting to know the patient helped to re-establish this connection.

KP10: "I see you lying motionless in bed with your eyes closed...I wonder if you can hear me...I think so because yesterday when I was telling you about XXX you moved your eyebrow, arched like you do when you are stunned by news...but what if it's just an impression...?...and so by writing here I feel I'm talking to you better and I'm sure that when you wake up and read it again, maybe everything will come back to you..."

IR08: "Here I am again, how are you today? Well, you seem more cheerful, or at least that is my impression.... DW04 'Writing to you here feels a bit like I'm talking to you.... as if I'm saying things twice, in your ear and here AZ01 and here we are, we're almost there, come on, you're calm and we're going home soon".

# Relatives' feelings regarding hospitalisation

The feelings of the relatives who write in the diaries are also constantly described, with variations depending on the cynical development of the situation surrounding the hospitalised person.

PK15: "Coming in today and seeing you sitting there with a hint of a smile was a beautiful gift....You gave me a feeling of happiness that was missing....Thank you. Keep up the good work and we will go home happy".

# Fear of suffering

It is overwhelmingly clear from the writings that family members are afraid that their loved one is in pain and that they will not be able to express this feeling. The situation of their loved one and the impossibility of communicating clearly with the health professionals leads the relatives to fear the presence of pain and the impossibility of acting to alleviate this suffering due to the lack of verbal communication. BY 02: "...your face is relaxed, but not too much....I hope you don't have pain because it's difficult to understand from here....I've also asked the

nurses, the doctors, they say it's not there or at least that it doesn't cause problems....but what if it's not?". MN12: "when you move I'm afraid it's because of the pain, because of the operation you've had, they tell me it's normal in this case and that anyway you take medication for the pain, but I always ask because I think you can't tell them clearly and I'm afraid you might be in pain". EV05: "and then I have this feeling of fear, of anxiety, I don't know...linked to the fact that I don't know if you are really well or in pain....I can't wait until you can talk again and I hope that real suffering is not a memory of you".

#### **Spirituality**

The use of spirituality as a source of support and hope emerges strongly in the diaries. Spirituality as an emotional refuge that helps the family member to move beyond uncertainty, beyond suffering, to keep the hope of a better future alive and present.

DW04: "I'm always praying, I'm always praying for you and for God's plan to be fulfilled in the best way.... I have tears in my eyes but, my love, you must not suffer..... And also OL14: "I ask all my friends to pray for you, for us... I pray every moment that you will be well, without suffering or anything else, that you will heal and that you will always be serene, in every way...."

# The person at the centre of the relatives' lives

In all the diaries there are numerous references to the central role of the family member in the family context. The writings in the diaries reveal the central role of the person in intensive care within the family. The sense of emptiness felt by the family members (partners, children...) is reported, a sense of confusion that the absence of the person in intensive care leaves in the family context. CX03:"you are the pillar of our family, come back to us soon". AZ01 adds: "now that you are here there is an emptiness around us, an emptiness in our family....we all still revolve around you, like our children....every day they ask us when you are coming back....make sure you come back soon". HS07:"Yesterday the fear of losing you was strong, a discouragement attacked me and probably entered the house... I am afraid, and we all are, that what we don't want to happen will happen".

#### Connection with the outside world

The diary was also used as a tool to keep alive the link between the in-patient and the outside world. The transcriptions recount episodes that took place within the patient's family circle, positioning the patient as an active element of life that continues outside, offering a continuity of participation in daily life that overcomes the physical distance created by the illness.

JQ09: "with today's heat, Marta and her Mica went to the seaside, while Piero, as soon as he finished work, said Bosco et al. BMC Anesthesiology (2025) 25:210 Page 6 of 10

he wanted to spend a little time at home, to get some more news' and also 'you know, your cousin came by yesterday and said he wasn't going to Milan, he's still here waiting for you...."

### Usefulness of the diary in Understanding the care process

Family members often described the diary, written by everyone, as a useful tool for truly understanding the clinical progress of the hospitalised person, allowing them to have a real, complete and immediate vision of what their loved one was going through. The use of simple terms and non-technical transcriptions makes the perception of their loved one's experience complete and immediate. AZ01: "Here I always read what has happened and without complicated terms I understand how things are going"; KP10:"I always see or rather read that you are doing a lot of activities, that everyone is paying attention to you... well, this diary helps me to understand what happens to you during the day when I'm not there... without having to explain every time what the beeps are for or those numbers that change from one day to the next on the TV behind you".

Family members particularly appreciated the nurses' written updates. The nurses' written notes provided upto-date and accessible clinical information, which helped them to better understand the information and progress of their loved one's care. GT06: "Reading the things written here by the staff, by the nurses, helps me to understand better what is happening to me". LO11:"I see that even today they helped you to move, they tried to get you to breathe....just a little cough...but you'll see it's going to get better...it's a normal reflex, they use complicated terms but here they tell you clearly...I see that I'm always with you, I see it here and I notice it when I come in".

#### Discussion

The study explores the experiences and meanings attributed to ICU diaries by analyzing entries written by patients' family members. The literature shows that ICU patients' relatives consider diaries valuable, however the results of the studies are conflicting; moreover, in Italy their use has been poorly investigated and studies in this sense are recommended [20]. Three main themes emerged: (1) time, (2) family context, with the sub-themes of maintaining contact with the patient, family members' feelings about the period of hospitalisation, fear of suffering, spirituality, the patient at the centre of the family members' lives and the link with the outside world, and (3) the usefulness of the diary in understanding the care pathway. The results suggest that diaries, as a communication tool, may play a role in reducing the stress experienced by family members during their loved one's admission to intensive care and increase feelings of closeness. Although ICU diaries are a valuable tool for strengthening the therapeutic alliance, they should not replace direct communication between healthcare professionals and family members. Consistent and clear communication with clinicians is essential, as its absence or ineffectiveness often leads to psychological distress among relatives, while effective dialogue helps reduce anxiety and emotional burden [21, 22]. Patients admitted to intensive care become aware of problems such as loss of autonomy, functional independence and the awareness that their life is in danger. This is also experienced by their families, which often generates anxiety and suffering due to the lack of control over the future. An effective dialogue with the medical staff, based on the background, cultural, spiritual and social beliefs of the patient helps an accurate prognostic understanding that will focus on the objectives of correct communication [23]. Indeed, the presence of a family member in the ICU is an extremely stressful experience, characterised by uncertainty about the patient's condition, a sense of helplessness at not being able to contribute directly to treatment, and detachment from the family's daily routine.

Several strategies have been developed to support family members, including the involvement of family members in care [24] and the use of diaries [25, 26], which have been shown to be useful in reducing symptoms of anxiety and depression in both patients and family members during hospitalisation and in the post-discharge period [27, 28]. This study provides new insights into what has already been reported in the literature, highlighting how diaries are a useful tool to preserve and reflect on moments shared with the patient, both present and past [28].

Recent studies have highlighted how ICU diaries promote more conscious and person-centred care; the diary has also proven useful in emotionally addressing the experience of death in the intensive care setting [29, 30]. Our study shows that diary writing by family members can support emotional processing and strengthen the bond with the patient. In line with the literature, the diary confirms its value as a tool for humanising care, reflecting on lived experiences, and preserving the relational and emotional dimension [29, 30].

The theme of time, explores how memories of the past and projections of future hopes can intertwine in the experience of family members of patients admitted to intensive care. The integration of positive memories and future expectations serves as a key coping strategy, helping family members maintain an emotional connection and provide support to the patient during critical phases of hospitalisation.

The second theme concerns the family context, which becomes even more important in the case of patients admitted to intensive care, where the clinical condition is particularly serious and the treatment often complex and Bosco et al. BMC Anesthesiology (2025) 25:210 Page 7 of 10

invasive. Here, the family context ensures adequate support and optimal management of the patient.

The first sub-theme, maintenance of contact with the patient, focuses on the importance of the diary as a tool for maintaining an emotional bond between family members and the patient, even when the latter is unconscious. This tool becomes crucial in reducing the sense of loss that family members may feel when the patient is separated from the daily routine and can no longer actively participate in family life [31]. The diary allows family members to express their feelings and to symbolically continue 'talking' with the patient, even if physically distant or unaware of their presence [27].

The second sub-theme concerns the relatives' feelings regarding hospitalisation. The emotions of family members are complex and marked by ups and downs, depending on the patient's clinical evolution. Every sign of improvement rekindles hope and the desire to return to normal, but uncertainty is an emotional constant that is difficult to deal with. Anxiety related to the fear of permanent loss, such as disability, is another source of stress, aggravated by the fear of sudden complications [32]. During the ICU hospitalization period, family members experience moments that fluctuate between hope and uncertainty, which may take different forms, such as the desire for recovery, more time, or shared moments with their loved one [23]. In this context, the most difficult aspect is seeing one's family member frail and unrecognizable in the ICU. Recognition of emotions by healthcare personnel is therefore crucial in providing support and closeness to family members [33]. Coping with uncertainty becomes a challenging and continuous process that extends from the first moment to the following weeks. Access to information, unfortunately, does not always relieve anxiety, leaving family members in a state of suspense, as expressed by the testimony of a patient in the study by Agard et al. [34]. The condition of uncertainty makes it difficult to find comfort in moments of fragility.

The third sub-theme explores the fear of suffering: the predominant feelings during hospitalisation in intensive care are characterised by sadness, vulnerability, despair and helplessness, especially when the patient's condition deteriorates rapidly. Anxiety about the outcome of the illness is intertwined with the fear of death and its irreversible consequences, generating strong anxiety about the future, marked by the fear that the patient may suffer or lose his or her autonomy [33].

The theme of spirituality emerges in many interviews: prayer and spiritual support can become sources of comfort in dealing with stress and anxiety for relatives. Spirituality and religiosity are recognised in the literature as resources for reducing emotional burden, creating an environment of hope and trust [35, 36]. However, these

moments can also be experienced with mixed emotions, between apprehension for the future and compassion for the patient's pain [33]. Spirituality care has a significant positive impact on the patient's perception of quality of life and dignity [37]. Integrating spiritual care through the use of ICU diaries may enhance the psychological well-being of both patients and their family members, by providing a space for the expression of inner experiences and contributing to more comprehensive and personcentered care [37].

The fifth sub-theme focuses, the person at the centre of the relatives' lives, confirm that diaries not only help to collect and organise clinical information, but also preserve the emotional bond between the patient and family members, especially when the patient is unconscious. In fact, due to the state of vulnerability, diaries allow family members to express deep feelings towards the patient that would not otherwise be communicated, reinforcing the perception that the patient is at the centre of the family member's life [27, 28].

The six sub-theme focuses on the connection with the outside world, which offers the opportunity to keep the patient informed about the family's daily life through diary writing. This connection helps to maintain a sense of inclusion, reducing isolation and disconnection during long periods of hospitalisation [28]. Thus, documenting daily life events outside the hospital is a key element in reducing the isolation and sense of disconnection that can occur during long hospital stays [28]. The presence of family members next to the patient in the ICU is crucial for maintaining the patient's connection to the outside world, representing continuity in their lives. The studies by Engstrom and Soderberg [38] and Lam and Beaulieu [39] emphasise the importance of this presence, both for the patient's well-being and for the emotional support it offers to family members. Similar results have also been obtained in other research [34, 40, 41], which suggest the need to initiate discussions among ICU nurses on the introduction of open and flexible visitation policies that can protect the patient and allow extended visits by relatives.

Finally, the third theme explores the usefulness of the diary in understanding the care process.

The diary becomes a tool that promotes communication between relatives and healthcare staff, fostering a sense of transparency and trust in the patient's treatment. The nurses' written notes not only provide clearer information to relatives, but are also perceived as a sign of empathy and involvement, helping to humanise the patient's experience and emphasising the importance of considering the person as a whole, beyond the medical aspects [27]. Reading these diaries helps family members reduce the emotional impact of the situation and feel reassured that the patient is receiving the best possible

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care, improving the caregiver's psychological well-being [42]. At the same time, notes written by family members enable nurses to better understand the mood and needs of relatives, helping them to face their loved one's illness with greater support and understanding. Previous studies, in fact, suggest that family members are often overwhelmed by emotions such as anxiety, fear of losing the patient and concern for the family unit [43, 44]. Families therefore viewed the diary as a useful tool for humanising the ICU, as written emotional expression supported the caregiver's psychological well-being [42]. Furthermore, the use of the diary allowed families to perceive staff as compassionate and empathetic, providing them with reassurance that the patient was safe and well cared for [27].

It is important to understand the emotional and relational dynamics that diaries in intensive care can activate in family members. The analysis of the findings suggests that the use of diaries by family members of ICU patients may support the coping process, contributing to the development of more conscious and structured care strategies for both patients and their relatives. In this perspective, the structured introduction of family-authored diaries in a greater number of intensive care units could represent a valuable resource, whose clinical impact deserves careful evaluation.

Further research is needed to explore the role of diaries written by family members, a relevant yet still underinvestigated area, with the aim of fully understanding their emotional impact and developing effective strategies for their implementation [45, 46].

# Implications for clinical practice

The results of this study suggest some implications for clinical practice. This study highlights the importance of paying more attention to the emotional reactions, behaviours and individual needs of family members of intensive care patients. Diaries are a significant tool in this context, as they not only foster the continuity of the emotional bond between patient and family members, even when the patient is unconscious, but also improve communication between family members and healthcare personnel. To optimise the use of diaries and ensure adequate support for family members, it is essential to constantly monitor their impact through feedback from relatives and caregivers, so as to adapt the approach to the specific needs of families and patients. In addition, further research is needed to explore the role of communication and collaboration between relatives and nurses, exploring both perspectives. To this end, it is recommended that critical care nurses develop educational programmes that recognise the complexity of the experience of family members, focusing on strategies to assess individual resources and respond in a targeted manner to their support needs.

#### Limitations

Despite the promising results, the study has several limitations. Firstly, as it was conducted in a single geographical area, the results may not be fully generalisable to other clinical or cultural contexts. In addition, the research focused exclusively on diaries written by family members of patients admitted to intensive care units, excluding the possibility of comparison with the perspectives of nurses and patients themselves. This limitation may affect the overall understanding of the impact of the diaries, as the experiences and opinions of patients and carers may provide additional insights. Future research could include a larger sample, including nurses and patients, for a more comprehensive evaluation of the impact of diaries in intensive care. In addition, extending the study to different geographical and cultural contexts could facilitate the adaptation and implementation of ICU narrative diaries in other care settings, providing stronger evidence for global application.

#### **Conclusions**

The study highlighted the value of ICU diaries as a support tool for families during the patient's hospital stay. In addition, the family members' positive perception of the care and attention provided by the nursing staff increased their sense of trust and security. The clinical information shared through the diary was appreciated by the relatives as it facilitated a better understanding of the patient's health status and helped to reduce anxiety about the patient's condition.

# **Abbreviations**

CEINGE Advanced Biotechnologies

COREQ Consolidated Criteria for Reporting Qualitative Research

ICU Intensive Care Unit

PICS F–Post–Intensive Care Syndrome Family

PTSD Post–Traumatic Stress Disorder

WHO World Health Organization

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Not applicable.

# **Author contributions**

Conceptualization, V.B., C.M. and S.S.; methodology, V.B., C.M. and S.S.; formal analysis, V.B., C.M., R.N., M.C., I.U., V.G.; investigation, V.B., C.M., R.N., V.G. and S.S.; writing—original draft preparation, V.B., C.M., R.N., M.C., I.U., V.G., and S.S.; writing—review and editing, V.B., C.M., R.N., M.C., I.U., V.G., and S.S.; visualization, V.B., C.M. and S.S.; supervision, S.S.; project administration, S.S.; funding acquisition, I.U. All authors have read and agreed to the published version of the manuscript.

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#### Data availability

All data used in this study are included in the article. For any other inquiries, please contact the corresponding author.

#### **Declarations**

#### Ethics approval and consent to participate

This study was approved by the Ethics Committee of Calabria Region, Central Area, with protocol number 65/2023. This study was conducted in accordance with the Declaration of Helsinki. All participants were informed about the nature and scope of the study, reassured of the confidentiality of the data, and provided written informed consent. Participants had the opportunity to withdraw from the study at any time during the data collection process.

#### Consent for publication

not applicable.

#### **Competing interests**

The authors declare no competing interests.

#### **Author details**

<sup>1</sup>Department of Biomedicine and Prevention, University of Rome "Tor Vergata", Rome, Italy

<sup>2</sup>Department of Clinical and Experimental Medicine, University of Catanzaro Magna Graecia, Catanzaro, Italy

<sup>3</sup>Department of Translational Medical Science, Federico II University Hospital, Naples, Italy

<sup>4</sup>ImmunoNutritionLab, CEINGE-Advanced Biotechnologies, University of Naples "Federico II", Naples, Italy

<sup>5</sup>Division of Scientific Research and Innovation in Emergency Medical Service, Department of Emergency Medical Service, Faculty of Nursing and Midwifery, Wroclaw Medical University, Parkowa 34, Wroclaw, Poland <sup>6</sup>Group of Research in Care (GRUPAC), Faculty of Health Sciences, University of La Rioja, Logroño, Spain

<sup>7</sup>Institute of Heart Diseases, University Hospital, Wrocław, Poland <sup>8</sup>Division of Research Methodology, Department of Nursing, Faculty of Nursing and Midwifery, Wrocław Medical University, Wrocław, Poland <sup>9</sup>Centre for Cardiovascular Health, Edinburgh Napier University, Sighthill Campus, Edinburgh, UK

<sup>10</sup>Department of Public Health, Federico II University of Naples, Naples,

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