



# Expressive Writing and Self-Care in Palliative Care Professionals: A Qualitative Longitudinal Study

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## Abstract

Palliative care professionals are exposed to emotionally intense situations. Stress, anxiety, and burnout can impact the dimension of care through the loss of motivation. Expressive writing in the general population effectively promotes emotion regulation through meaning-making. This study aimed to evaluate the impact of Expressive writing on the meaning change in the perception of traumatic professional events in multi-professional palliative care settings in Italy. We conducted a prospective study with longitudinal qualitative methodology, following an ad-hoc expressive writing protocol. The study involved the selection of 10 various palliative care professionals working in hospices, hospital palliative care units, and community palliative care. We identified six main themes that shifted meaning throughout the four writing sessions: description of the phenomena, strong emotions, health workers' elaborations, processing feelings, improvement strategies, and interior resources. Expressive writing is effective in helping palliative care professionals process intense emotions and feelings related to a traumatic event, stimulating critical self-reflection and self-care, and supporting meaning-making.

**Keywords** Expressive writing · Palliative care professionals · Qualitative analysis · Emotional regulation · Self-care

## Introduction

### Description of the Research Problem

Advances in medical science have allowed people with chronic conditions, such as cancer to live longer. However, the approach to palliative care is still delayed (Oliveira et al., 2024).

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Patients in palliative care may experience both intense physical suffering and non-physical suffering as psychological, emotional, social, existential, and spiritual suffering (Rattner & Cait, 2024). The challenges most frequently reported by professionals in caring for these patients consist of multi-morbidity, reduced compliance, communication difficulties, biographical trauma, and lack of social support (Marti et al., 2024). Adding to the complexity of assisting these patients is that in palliative care, the family caregiver is often present, and thus intervention entails assistance to the patient-family dyad. Caregivers experience the burden of the disease heavily, experiencing a daily struggle with patients and perceiving a need for information and support (Chow et al., 2023; Oliveira et al., 2024).

Palliative care goes beyond taking care of physical needs and requires global and holistic care of the patient-caregiver dyad (Elina et al., 2024). Palliative care professionals face intense emotional challenges when caring for patients with advanced severe illnesses and death and, at times, encounter suffering that may be considered “intolerable” (Arantzamendi et al., 2024; Delafontaine et al., 2024). Some of the emotional demands of palliative care work include the assimilation of negative emotional responses, breaking bad news,

potential threats to personal beliefs, coping with the inability to cure, exposure to emotional clashes and death, patient suffering, and secondary trauma (Hill et al., 2016). Organizational aspects, such as limited care time, high workloads, and complex practical demands, can further hinder palliative care workers' ability to provide holistic care (Rattner & Cai, 2024). Continuous effort and exposure to potentially traumatic situations could trigger compassion fatigue (Barrué & Sánchez-Gómez, 2021) and burnout (Na & So-Young, 2023; Pehlivan Saribudak, 2023; Tang et al., 2021).

Enhancing the regulation of emotional arousal and emotional expressions flexibly according to the context may help prevent and reduce burnout (Castilla et al., 2022; Dijxhoorn et al., 2021; Ferreres-Galán et al., 2022). This may occur by way of developing awareness about one's own emotions and the acceptance of negative ones, resulting in reducing depression and anxiety symptoms, which can be involved in burnout syndromes (Cheung & Ng, 2019). Enhancing emotion regulation may promote volitional functioning, personal well-being, and high-quality relationships through the development of autonomy and self-determination (Roth et al., 2019).

Expressive writing (EW) was developed by Pennebaker and Beall (1986) as a means of giving voice to emotions through writing (Zhang et al., 2023) and can be considered an intervention to enhance emotion regulation. Writing about an emotional upheaval or stressful event is considered an effective way to process feelings and release negative emotions. (Pennebaker & Evans, 2014). EW may also stimulate cognitive changes by strengthening self-reflection, promoting changes in cognition and coping, increasing resilience to traumatic events, and supporting meaning-finding (Glass et al., 2019; Lai et al., 2023; Saldanha & Barclay, 2021). In addition, EW can be considered as an unfacilitated therapeutic writing intervention, so it is possible to apply it individually without professional guidance, making it a potentially valuable self-care instrument (Forster et al., 2023).

EW has shown positive effects when used to support healthcare workers, as shown in quantitative studies involving palliative care workers, where it improved commitment and reduced intrusive emotions and, during the early COVID-19 pandemic, where it improved post-traumatic stress disorder, depression, and psychopathological symptoms, and promoted satisfaction (Cochran & Mealer, 2023; Cosentino et al., 2019, 2021a, 2021b; Procaccia et al., 2021).

As quantitative studies shed light on the final effects of EW in supporting health workers and palliative care professionals, to our knowledge, only one study explored this interaction with a qualitative approach (Cosentino et al., 2021a, 2021b). Using a qualitative methodology allows researchers to understand in depth the changes that can occur during an EW protocol within the person who is writing,

thus unveiling the emotional and cognitive evolution and the meaning creation that seems to come along with an EW intervention and determining the positive change in emotional regulation.

As we began with consistent quantitative data showing the effectiveness of EW in improving the psychological well-being of healthcare workers, some aspects remain unexplored.

What happens during the EW protocol? Which paths are followed by healthcare professionals when they go through the description of an emotionally intense event occurring in their professional life? Which psychological resources are developed or which defenses and barriers are dismantled during EW intervention in this specific population?

These questions, which are fundamental to understanding why EW is an effective tool in supporting healthcare professionals, necessitate qualitative studies to be addressed.

To date, scientific literature lacks an adequate number of qualitative studies to show how EW, implemented with specific protocols tailored to this population, could positively impact the range of valid self-care instruments for healthcare workers exposed to emotional stressors.

## Research Goal

The goal of this study was to provide a scientific contribution to the development of self-care for palliative care professionals, highlighting through a qualitative analysis how the perception of a traumatic professional event with a high level of emotional stress changes over time in multi-professional palliative care settings during an expressive writing protocol.

## Method

### Research Design Overview

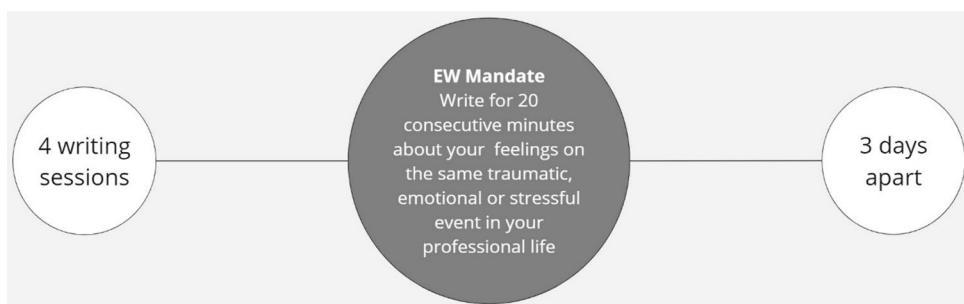
We conducted a prospective study using a longitudinal qualitative methodology (Table 1) in a sample of healthcare professionals who followed an EW protocol involving four writing sessions, three days apart, and with a single writing mandate (Calman et al., 2013; Cosentino, D'apice et al., 2021; J. W. Pennebaker & Beall, 1986) (Fig. 1). We used thematic analysis to analyze differences in meaning between writings and change in emotional stress over time.

The research team comprised a clinical psychologist, two nurses trained in qualitative research, a palliative care nurse, and a sociologist expert in qualitative analysis. The team had previous experience in EW applied in medical settings.

We chose a qualitative approach for this research to focus on the healthcare professionals' lived experiences. We wanted to investigate changes in the type of emotions

**Table 1** Study design

Time	Day 1	Days 2–3–4	Day 5	Days 6–7–8	Day 9	Days 10–11–12	Day 13
N° of EW	Expressive Writing T0		Expressive Writing T1		Expressive Writing T2		Expressive Writing T3
EW mandate	<i>Write about a stressful episode</i>		<i>Writing about the SAME stressful episode</i>		<i>Writing about the SAME stressful episode</i>		<i>Writing about the SAME stressful episode</i>

**Fig. 1** EW Protocol (Cosentino et al., 2019)

they were able to identify and express, self-awareness, and type of reflections and meaning-making throughout the EW protocol. These aims were best suited for qualitative methodology (Manning & Kunkel, 2014).

## Study Participants

### Participants

We invited various palliative care professionals to participate: nurses, social and health care workers, auxiliary workers, physicians, and psychologists working in hospices, hospital palliative care units, and community palliative care in Italy.

### Researcher–Participant Recruitment

Participants were recruited through direct contact between the researchers and the managers of the identified facilities. The research team explained the purpose of the study to the managers and asked them to request the consent of the professionals working in their facilities to participate. The research team previously knew the settings where the study took place, but the researchers who made contact directly with the participants did not have previous relationships with them.

### Participant Selection

Participants were selected through a convenience sampling balanced by setting, with snowball selection.

To be included in the study, health professionals belonging to different professions (nurse, doctor, psychologist, socio-medical workers, auxiliaries) needed to meet the following inclusion criteria ability to proficiently read and write in Italian, continuous work for at least 6 months with palliative care patients, and consent to participate in the study (Kaur et al., 2018).

### Data Collection

#### Data Collection

Participants performed all writing sessions at their homes to ensure their privacy and a calm environment. The participants were asked to write for 20 consecutive minutes about a single traumatic, stressful, and emotionally significant event in their professional life. The EW mandate was as follows (Fig. 2):

The writings were assessed prior to analysis to verify that each participant had fulfilled the four writings and that they were accompanied by informed consent and consent to data processing. The final amount of collected data was 40 handwritten writings. The writings were transformed from paper to digital format and coded to ensure anonymity.

**Fig. 2** EW mandate at T0, T1, T2, T3 (Cosentino et al., 2019)

"We would like you to write for 20 consecutive minutes about your deepest thoughts and feelings about the same traumatic, emotional or stressful event in your professional life. Do not worry about grammar, spelling and sentence structure. We would like you to examine in your text your state of mind and your deepest thoughts about this experience. It should be something that has affected you very deeply, it could be something about the past, the present, or even your future. Ideally, you should choose something that you have never talked about in detail with anyone. It is essential that you let yourself go and get in touch with your deepest emotions and thoughts. In other words, write down what happened, how you experienced the episode then and how you feel about it now. The choice of topic to write about is entirely up to you. All your writings will be completely confidential and anonymous. The only rule is that once you start writing, you continue until the end of 20 minutes."

## Analysis

### Data Analytic Strategies

The writings were subjected to thematic analysis by Braun and Clarke's model (Braun & Clarke, 2006; Clarke & Braun, 2021) and were analyzed in chronological order. To proceed with the thematic analysis, researchers first read the text to understand its general intention. Then, researchers highlighted the sentences concerning the objective of the analysis, that is, the shift in meaning.

Four researchers with specific training in the qualitative longitudinal approach (GA, GC, SN, CC) in pairs independently analyzed the transcripts by repeatedly reading the text, extracting the units of meaning that emerged, grouping them into sub-themes and then into main themes. The two researchers then compared their results and resolved discrepant findings through consensus. If consensus was not reached, a third researcher was consulted. As a group, the researchers checked and shared the main themes and their sub-themes, verifying that they were consistent with the transcripts' data, finding coherence between the data, units of meaning, sub-themes, and main themes.

### Methodological Integrity

The methodological rigor of the analysis process was further ensured through the supervision of another researcher external to the study. Having identified and renamed the main themes to be consistent with the data, the themes and sub-themes were compared between T0, T1, T2, and T3, highlighting any meaning shift about what the professionals expressed between the first, second, third, and fourth writing.

We used the Consolidated Criteria for Reporting Qualitative Research (COREQ (Tong et al., 2007).

To ensure data trustworthiness, criteria proposed by Guba and Lincoln were used to check scientific accuracy in qualitative research, including credibility, dependability,

confirmability, transferability, and authenticity, during the study (Guba & Lincoln, 2001).

## Results

Twelve palliative healthcare workers meeting the inclusion criteria volunteered to participate in the study. The writings of two participants were excluded from the analysis because they did not comply with the mandate or were incomplete. The final sample ( $N=10$ ) included 7 nurses, 2 nursing assistants, and 1 physician. Seven were women, 3 were men, and the mean age was 37.

The research team identified six main themes: Description of the phenomena, Strong emotions, Health worker's elaborations, Strong feelings, Improvement strategies, and Interior resources (Tables 2 and 3; for each theme, the changes in meaning from T0 to T1, to T2 and T3 were highlighted with related quotes).

### Main theme 1: Description of the Phenomena

*Description of the phenomena* showed a meaning shift from T0 ("Analytical and objective writing") to T1 ("Ample space for subjective description") to T2 ("Emotional deepening of the phenomenon") to T3 ("The need for the narration of the event is exhausted").

- (i) In T0 writings, analytical and detailed descriptions described the event. During the EW process, the analytical descriptions of the phenomenon did not leave room for the emotional involvement of the operator.
- (ii) In T1 writings, subjective descriptions of the phenomena with the operator's emotional involvement were prevalent. The analysis of the event left space for helplessness, victory, vivid memories, challenge, stress, and well-being as recurring emotions. Ample space was given to subjective and introspective descriptions.

**Table 2** Main themes and meaning shift in the four different writing moments (Themes 1, 2, and 3)

THEME 1 - DESCRIPTION OF THE PHENOMENA							
Sub-theme T0 (From)	Quote T0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
(i) Analytical and objective writing	<i>"That day I go into service, I go to say goodbye to her, she tells me that she can't take it anymore, that she wants to be sedated, that she is ready to leave everything."</i> (cod. P.I.3).	(ii) Ample space for subjective description	<i>"Up until now I have always trusted any colleague, but now it is the first time that I have found a colleague who I don't trust."</i> (Cod. M.II.3)	(iii) Emotional deepening of the phenomenon	<i>"As things inevitably got worse, it seemed like this fiction of "everything was fine" was getting tighter and tighter, bothering me on a deep level."</i> (Cod. L.III.1)	(iv) The need for the narration of the event is exhausted	<i>The storm has passed!"</i> (Cod. C.IV.1)
THEME 2 - STRONG EMOTIONS							
Sub-theme T0 (From)	Quote T0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
(i) Negative emotions stimulated writing	<i>"Inside I felt a sense of anger mixed with discouragement. I wondered why he was in such a hurry to let him go."</i> (cod. F.I.5).	(ii) Need to examine one's emotions	<i>"I feel misunderstood and angry, nervous"</i> (cod. A.II.6),	(iii) Emotion processing	<i>"Life goes on, I am calmer. Now, I seem to have more patience, but the tone doesn't change. They're just a little less frequent."</i> (Cod. B.III.6)	(iv) Weakened, reduced emotions	<i>I feel profound quiet and tranquility."</i> (Cod. F.IV.2).
THEME 3 - ELABORATIONS BY HEALTH WORKERS							
Sub-theme T0 (From)	Quote T0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
(i) The reactions indicate a genuine involvement	<i>"I used very strong words, starting from what I had heard."</i> (Cod. B.I.6)	(ii) Reflective space about traumas	<i>"Everyone can make their contribution to making sick people feel good not only with medicines but also just with their presence, with a hug, with kind words full of closeness to understand that for example when they ring the bell to ask it wasn't thirsty, but rather a "stay close to me".</i> (Cod. E.II.6)	(iii) Confidence with the tool of writing	<i>"I continue to carry within me the request of the "jockey" to stop suffering and perhaps that memory still hurts".</i> (Cod. P.III.7)	(iv) Recognition of the benefits of writing	<i>"And even today, when many years have passed and the memory and the emotion have faded, I reflect on why things went like this and on where I could have diverted my route so as not to find myself forced to do the choice."</i> (Cod. L.IV.18)

- (iii) In T2 writings, there was a prevalence of subjective descriptions that often referred to time. Writing was more focused on emotions and subjective descriptions of the phenomenon, e.g.: *"And I think the more time passed the more I couldn't... I didn't want to... remain silent."* (L.III.18).
- (iv) In T3 writings, we noted a significant reduction in the professional's description of the phenomenon. Short

descriptions indicated an exhaustion of the need to narrate the events.

## Theme 2: Strong Emotions

*Strong emotions* showed a meaning shift from T0 ("Negative emotions stimulated writing") to T1 ("Need to examine

**Table 3** Main themes and meaning shift in the four different writing moments (THEMES 4,5, and 6)

THEME 4 – PROCESSING FEELINGS							
Sub-theme T0 (From)	QuoteT0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
“Health workers show discomfort”	(i) <i>I struggled a lot, I worked on myself because I was certain that I needed to professionally respect even the event of death. I felt that my place was in the hospice but how much pain and how much sense of uselessness I felt.” (Cod. P.I.9)</i>	(i) <i>Feelings have left room for reflections</i>	(i) <i>Thinking back on those experiences, I reflected on myself and what those experiences taught me (...) (Cod. C.II.6)</i>	(iii) <i>Maturation of positive feelings</i>	(i) <i>“I am calm, look. Helplessness, calm, indifference.” (Cod. A.III.5)</i>	(iv) Not-present	(iv) <i>NP</i>
THEME 5 - IMPROVEMENT STRATEGIES							
Sub-theme T0 (From)	QuoteT0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
(i) <u>“Professionals face difficulties with detachment”</u>	<u>“Yes, I know, such an attitude is bad, but it represents a way of downplaying certain situations that would otherwise be heavy and humanly untenable.” (Cod. O.I.4)</u>	(ii) <u>“Not present”</u>	<u>NP</u>	(iii) <u>“Searching for a point of contact with others”</u>	<u>“I would like to find a way to talk to her.” (Cod. M.III.18)</u>	(iv) <u>“Projection of self into the future”</u>	<u>“And now inside me there is not only my life, my edges, but a new life, which needs my serenity to grow.” (Cod. B.IV.8)</u>
THEME 6 - INTERIOR RESOURCES							
Sub-theme T0 (From)	QuoteT0 (from)	Sub-theme T1 (To)	Quote T1 (to)	Sub-theme T2 (To)	Quote T2 (to)	Sub-theme T3	Quote T3
(i) <u>“Predisposition for proactive listening”</u>	<u>“I would like to hug her but interpersonal contacts are not allowed (there is Covid!) and at that moment I stay there until I understand that I am useful.” (Cod. O.I.14)</u>	(ii) <u>“Greater attention to internalization and meaning”</u>	<u>“I probably felt so involved, emotionally, by B.’s experience, because I identified her in myself.” (Cod. O.II.4)</u>	(iii) <u>“Broader vision and awareness of one’s difficulties and desires”</u>	<u>“Can you decide to want to die like this at a young age? How much courage did it take for her to ask me to put her to sleep forever? Why did you then ask me? Because I had sat next to her the day before and looked at photos of her? Because I did listen to her story?” (Cod. P.III.1)</u>	(iv) <u>“Reprocessing with satisfaction”</u>	<u>“I am aware that these stories are helping me a lot, writing without thinking has done me good.” (Cod. P.IV.8)</u>

*one's emotions") to T2 ("Emotion processing") to T3 ("Weakened, reduced emotions").*

- (i) In T0 writings, the emotions mainly described were anger, frustration, bitterness, disappointment, disagreement, discouragement, and concern for oneself and others.
- (ii) In T1 writings, less importance was given to the manifestation of intense emotions, whereas the need arose to give ample space to the processing of the event through the narration of traumatic events and the examination of one's emotions.
- (iii) In T2 writings, participants stated that after the narration of the traumatic event, they were more serene, reworking their emotions and emphasizing the power of writing as a transformative tool.
- (iv) In T3 writings, the emotions were calm and less intense. At the time of writing, the emotions expressed were sadness, quietness, and tranquility.

### Theme 3: Elaborations by Health Workers

*Elaborations by health workers* showed a meaning shift from T0 ("The reactions indicate a genuine involvement") to T1 ("Reflective space about traumas") to T2 ("Confidence with the tool of writing") to T3 ("Recognition of the benefits of writing").

- (i) In T0 writings, only impulsive reactions appeared, indicative of an authentic and not yet fully elaborated involvement. They were actively interested by their job and tasks and felt involved from a professional point of view.
- (ii) In T1 writings, the "reactions" disappeared, and the "reflections" appeared. The usefulness of writing concerned the traumatic event and the set of critical issues the operator had found himself facing.
- (iii) In T2 writings, no passages were related to the sub-theme of reactions. Confidence appeared and professionals felt free to write and gain confidence with the tool of writing.
- (iv) In T3 writings, there were no reactions to emotions. Professionals moved from an emotional to a cognitive level. Indeed, several reflections appeared on the benefit of EW, considered a liberating act.

### Theme 4: Processing Feelings

*Processing feelings* showed a meaning shift from T0 ("Health workers show discomfort") to T1 ("Feelings have left room for reflections") to T2 ("Maturation of positive feelings") to T3 ("Not-present").

- (i) In the T0 writings, frustration, fatigue, and discomfort indicated work-related distress that affected private life. Participants claimed to be so tired that they could not cope with other problems, "not even family problems" (G I.5).
- (ii) In T1 writings, the feelings left space for reflections and subjective narration.
- (iii) In T2 writings, the awareness arose that narrating the events leads to a deeper reflection by looking at them from another perspective. Positive feelings arose when taking a distance from the situation, such as gratification, serenity, acceptance, calm, esteem, admiration, and respect, but also negative attitudes toward others, such as indifference and distrust.
- (iv) In T3 writings, there were no feelings.

### Theme 5: Improvement Strategies

*Improvement strategies* showed a meaning shift from T0 ("Professionals face difficulties with detachment") to T1 ("Not present") to T2 ("Searching for a point of contact with others") to T3 ("Projection of self into the future").

- (i) In T0 writings, there was irony, forgetfulness, and pandering; professionals adopted an attitude of detachment that indicated compassion fatigue and an inability to rely on the reflective tool of writing to navigate openly the emotional distress they have experienced.
- (ii) In T1 writings, there were no passages that could refer to the category of strategies.
- (iii) In T2 writings, both individual and group strategies emerged. These were strategies aimed at finding a point of contact with each other.
- (iv) In T3 writings, a bridge was created between processing the experience and projecting the self into the future. The importance of reflection on experiences was understood.

### Theme 6: Interior Resources

*Interior resources* showed a meaning shift from T0 ("Predisposition for proactive listening") to T1 ("Greater attention to internalization and meaning") to T2 ("Broader vision and awareness of one's difficulties and desires") to T3 ("Reprocessing with satisfaction").

- (i) In T0 writings, there were excerpts relating to awareness, the value of the team, and empathy to denote a predisposition for active listening, being there, and caring.
- (ii) In T1 writings, awareness prevailed, along with reflections on the team and philosophical aspects.

- More intimate writings emerged, and the writing became deeper. The attention shifted to what that situation meant for the professional, with greater internalization.
- (iii) In T2 writings, thoughts were mature, with broader visions. For the first time, there was empathy and reflections on philosophical and bioethical aspects. A strong awareness of self, difficulties and desires was highlighted, denoting maturity when coping with emotions.
  - (iv) In T4 writings, the professional's tendency to "take stock" with greater awareness was denoted as the result of the reprocessing of the event. The professionals declared themselves serene, calm, and optimistic about the future. Professionals expressed the usefulness of writing to care for their emotions, making them emerge and transforming them into experiences.

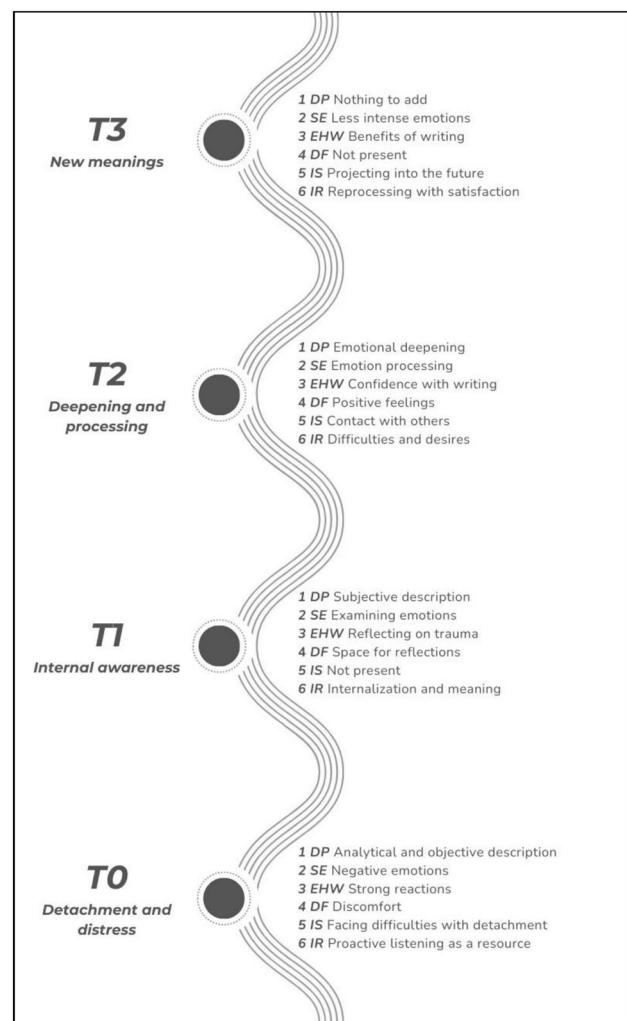
Giving a more expansive and comprehensive look to the results, we proposed an overview of the trajectory followed in the different writing sessions that allowed us to theorize an Emotional Processing during Expressive Writing (EPEW) model (Fig. 3).

## Discussion

This study aimed to investigate the effects of implementing EW on Italian healthcare professionals' self-care and explore how its use may mitigate the emotional impact of traumatizing events.

The first point of novelty of this study is using a qualitative thematic analysis of four consecutive writings at different times (T0, T1, T2, T3). The thematic comparison was carried out to check for changes in meaning that the participants attributed to the chosen events, the emotions, the feelings they experienced, the strategies and resources put in place, and the reprocessing processes. Several studies, including recent ones, have analyzed the effectiveness of EW over time, but they are mainly quantitative studies evaluating the improvement of traumatic stress disorder, depression, and psychopathological symptoms and satisfaction (Cochran & Mealer, 2023; Procaccia et al., 2021).

The second main element of this study is the chosen protocol. Four writings every three days were proposed over a total of 13 days. In the literature, we mainly find EW protocols, deriving from the early works of Pennebaker, in which the writings either are on consecutive days (usually from 2 to 4 days) or have two writings at least one day and a maximum of three days apart (Cosentino et al., 2019; Kilvington et al., 2023; J. W. Pennebaker, 1997; Procaccia et al., 2021; Tonarelli et al., 2018). Nonetheless, literature has shown



**Fig. 3** Expressive Writing Emotional Processing (EWEW) Model. Legenda: 1. DP=Description of the Phenomena; 2. SE=Strong Emotions; 3. EHW=Elaborations by Health Workers; 4. DF=Digesting Feelings; 5. IS=Improvement Strategies; 6. IR=Internal Resources

contradictory results regarding the spacing of writing sessions. To choose the protocol for this study, we relied on a meta-analysis showing better results in studies with weekly disclosure sessions (7-day intervals between each writing session), compared to studies with daily sessions (Smyth, 1998). Our results confirmed the evolution in emotional reprocessing and self-care occurred throughout the more delayed writing, as shown in Fig. 3.

This evolution of emotional reprocessing shows some important similarities with the theoretical model of « emotion processing» that lies behind some other psychotherapeutic approaches, such as Emotion-Focused Therapy (EFT) (Johnson et al., 2013). According to this model, emotional processing involves many subprocesses: awareness and arousal of emotion, downregulation of emotion, reflecting

on emotion, and transformational sequence of emotion (Khayyat-Abuaita et al., 2019). More in-depth, the evolution we were able to establish in the healthcare workers' writing fits with the model proposed by Pascual-Leone and Greenberg (2007) identifying the following steps: "*detachment and distress*" observed at T0; "*internal awareness*" observed at T1; "*deepening and processing*" observed at T2; "*new meanings*" observed at T3.

Unlike the indications of Pennebaker and some other studies, in which it was possible to write about different experiences during each session or about the same experience for all three days, in this study, we asked to write about the same traumatic event for every session (Kilvington et al., 2023; J. W. Pennebaker, 1997). Even though we analyzed aggregated writings for each session, it was possible to understand the changes the professionals experienced when returning to the memory of the same event. Throughout the writing sessions, professionals found within themselves the strength to face their own emotions and move through them, reaching positive emotional states and awareness of their role and resources. These positive results align with other quantitative studies and systematic reviews (Frattaroli, 2006; Frisina et al., 2004; Kukucska et al., 2023; Lee et al., 2023).

The qualitative results of the study were obtained with a thematic analysis using a grounded method, starting from the participants' writings. Some interesting observations emerge when looking in detail at the main changes in meaning occurring from time 0 to time 3.

- (i) Palliative care professionals move from a more analytical analysis at T0 to a more introspective and subjective description at T1 and T2, to finally fulfilling the need for the event's narration at T3. Pennebaker already stated that disclosing information, thoughts, and feelings on personal and significant topics had many beneficial psychological consequences (Frattaroli, 2006; J. W. Pennebaker & Beall, 1986). As far as we know, no specific literature has highlighted how beneficial can be the narration of one traumatic event for healthcare professionals.
- (ii) The focus shifts from strong negative emotions triggered by the act of writing at T0 to a need for self-evaluating emotions at T1 to proper emotions processing at T2, to less intense emotions at T3. Participants moved from intense feelings of frustration and fatigue to the perception of positive emotions throughout the writing sessions. Several studies highlighted, albeit with quantitative methodologies, that focusing on emotions, feelings, and more profound thoughts allowed healthcare workers to reduce distress symptoms and increase positive emotions and feelings, positively impacting well-being (Park et al., 2023; Procaccia et al., 2021). A recent study firmly

put in evidence the relationship between emotions, feelings, and well-being/burnout. It showed that burnout manifests with some dimensions related to the emotional domain as "altered emotion" and "feeling overwhelmed" and that they strictly relate to personal and professional well-being as "when a particular value is unfulfilled, an individual's reservoir will begin to drain faster than it can be refuelled." (Prentice et al., 2023). The processing of emotions in the final stage of the EW protocol can thus be interpreted as a crucial element in preventing the onset of burnout among these professionals.

- (iii) The ideation of specific strategies also evolved positively throughout the four writing sessions. Participants moved from emotional detachment, suggesting the presence of compassion fatigue (Banks et al., 2023) to a proper emotional processing, showing a new ability to feel compassionate toward other and selves.
- (iv) There is an essential meaning shift throughout the writing sessions. At T0, we observe a predisposition to active listening, and being actively oriented toward the patient. At T1, it emerges as a more intimate and meaningful writing. At T2, a strong awareness of oneself, of one's difficulties and desires is highlighted, denoting a maturity in managing emotions. Finally, at T3, we can observe the professionals' tendency to "take stock" as a result of the re-elaboration of the event. The professionals declare themselves serene, calm, and optimistic about the future. The projection of oneself into the future and the attention to taking care of oneself, which remains over time, constitute two new elements of what professionals experience and perceive in the sequential use of writing.

A transversal and holistic view of the results allowed us to develop inductively, starting from the meanings shared by the participants, a model of emotional processing occurring during this specific EW protocol. This reinforces the possibility of using EW as an instrument that professionals can use quickly and autonomously whenever they perceive the need to emotionally process some stressful or traumatic events linked to their professional practice. This would enlarge the repertoire of tools for professionals' self-care, which appears to be crucial in mitigating the adverse effects of stress on professional functioning and health (Campoli & Cummings, 2024).

The immediate practical application of these findings is that this specific protocol of EW could be used and taught in wellness programs and continuing education programs for professionals as it is unfacilitated, easy to follow (as indications do not change throughout the writing sessions), and

feasible as it can be done privately at home and is simple and economical. Moreover, it can be easily mastered with practice and experience and reinforce professionals' empowerment, giving them an instrument to use autonomously to process events and emotions, thus preventing burnout and organizational consequences such as turnover.

The main strength of this study is the use of a longitudinal qualitative methodology, which offers a novel contribution to the recent literature on the positive results of EW for palliative care healthcare professionals. The study's limitations are attributable to a relatively limited number of participants.

The study shows that EW helps palliative care professionals processing intense emotions and feelings due to a traumatic event, stimulating awareness, reflection, and supporting meaning-making. Other research including qualitative and mixed methods research using this specific EW protocol will be necessary to validate the EPEW model and strengthen evidence on the efficacy of the EW protocol in palliative care professionals.

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**Data Availability Statement** The datasets generated by the research and analyzed during the current study are available in the Zenodo repository [https://zenodo.org/records/10949545?token=eyJhbGciOiJIUzUxMiJ9eyJpZCI6IjJjNDMxNWNLNTNhNTItNDNjMC04ZWIxLTM5N2JjZDQxNjY2MiIsImRhGEiOnt9LCJyYW5kb20iOjJmZGEzYzY3MDA1OGY2Yzk0MzNhY2Y4NGE5YTkzYWU1YiJ9.dox\\_57EDmOj2OBjYXILfbWmwdQk25h-uB7P4MzPqbjBGtmrgAVQG631e7KkD9Gc07xiMKiRHhb46sqtKWFUw](https://zenodo.org/records/10949545?token=eyJhbGciOiJIUzUxMiJ9eyJpZCI6IjJjNDMxNWNLNTNhNTItNDNjMC04ZWIxLTM5N2JjZDQxNjY2MiIsImRhGEiOnt9LCJyYW5kb20iOjJmZGEzYzY3MDA1OGY2Yzk0MzNhY2Y4NGE5YTkzYWU1YiJ9.dox_57EDmOj2OBjYXILfbWmwdQk25h-uB7P4MzPqbjBGtmrgAVQG631e7KkD9Gc07xiMKiRHhb46sqtKWFUw). doi: <https://doi.org/10.5281/zenodo.10949544>

## Declarations

**Conflict of interest** The author(s) declare(s) that there is no relevant financial or non-financial interest to disclose.

**Ethics Approval** This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of the AVEN AUSLRE (Italy) No. 2019/0086551 of 22/07/2019.

**Consent to participate** Informed consent was obtained from all individual participants included in the study.

## References

- Arantzamendi, M., Sapeta, P., Belar, A., & Centeno, C. (2024). How palliative care professionals develop coping competence through their career : A grounded theory. *Palliative Medicine*. <https://doi.org/10.1177/02692163241229961>
- Banks, J., Amspoker, A. B., Vaughan, E. M., Woodard, L., & Naik, A. D. (2023). Ascertainment of minimal clinically important differences in the diabetes distress scale-17: A secondary analysis of a randomized clinical trial. *JAMA Network Open*, 6(11), e2342950. <https://doi.org/10.1001/jamanetworkopen.2023.42950>
- Barrué, P., & Sánchez-Gómez, M. (2021). The emotional experience of nurses in the Home Hospitalization Unit in palliative care: A qualitative exploratory study. *Enfermería Clínica (English Edition)*, 31(4), 211–221. <https://doi.org/10.1016/j.enfcl.2020.11.005>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Calman, L., Brunton, L., & Molassiotis, A. (2013). Developing longitudinal qualitative designs: Lessons learned and recommendations for health services research. *BMC Medical Research Methodology*, 13(1), 14. <https://doi.org/10.1186/1471-2288-13-14>
- Campoli, J., & Cummings, J. A. (2024). “Becoming a Person Who Does Self-Care” : How health care trainees naturalistically develop successful self-care practices. *Journal of Medical Education and Curricular Development*, 11, 23821205231223320. <https://doi.org/10.1177/23821205231223321>
- Castilla, D., Navarro-Haro, M. V., Suso-Ribera, C., Díaz-García, A., Zaragoza, I., & García-Palacios, A. (2022). Ecological momentary intervention to enhance emotion regulation in healthcare workers via smartphone: A randomized controlled trial protocol. *BMC Psychiatry*, 22(1), 164. <https://doi.org/10.1186/s12888-022-03800-x>
- Cheung, R. Y., & Ng, M. C. (2019). Mindfulness and symptoms of depression and anxiety: The underlying roles of awareness, acceptance, impulse control, and emotion regulation. *Mindfulness*, 10(6), 1124–1135.
- Chow, R., Mathews, J. J., Cheng, E. Y., Lo, S., Wong, J., Alam, S., Bannon, B., Rodin, G., Nissim, R., Hales, S., Kavalieratos, D., Quinn, K. L., Tomlinson, G., & Zimmermann, C. (2023). Interventions to improve outcomes for caregivers of patients with advanced cancer: A meta-analysis. *JNCI: Journal of the National Cancer Institute*, 115(8), 896–908. <https://doi.org/10.1093/jnci/djad075>
- Clarke, V., & Braun, V. (2021). Thematic analysis: A practical guide. *Thematic Analysis*, pp 1–100.
- Cochran, K. L., & Mealer, M. (2023). An evaluation of a narrative expressive writing program for nurses during the COVID-19 Pandemic. *JONA: The Journal of Nursing Administration*, 53(4), 228–233. <https://doi.org/10.1097/NNA.0000000000001274>
- Cosentino, C., Baccarini, E., Melotto, M., Meglioraldi, R., D'Antimi, S., Semeraro, V., Camacho, V. C., & Artioli, G. (2021a). The effects of expressing writing on palliative care healthcare professionals: A qualitative study. *Acta Bio-Medica*, 92(2), 2.
- Cosentino, C., Corte, C., Fioresi, E., Molina Ojeda, F., Pastore, S., Segernini, F., Spacci, A., & Artioli, G. (2019). Effects of Expressing Writing on organizational variables in Palliative Care health Professionals: An explorative study. *Acta Bio Medica Atenei Parmensis*, 90(11-S), 108–116. <https://doi.org/10.23750/abm.v90i11-S.8946>
- Cosentino, C., D'apice, C., Del Gaudio, M., Bertoletti, C., Bini, M., Liotti, M. C., Mellì, E., Tesa, F., Sarli, L., & Artioli, G. (2021). Effectiveness of Expressive Writing protocol in Palliative Care Healthworkers: A quantitative study. *Acta Bio Medica Atenei Parmensis*, 92(S2), e2021010. <https://doi.org/10.23750/abm.v92iS2.11468>
- Delafontaine, A.-C., Anders, R., Mathieu, B., Salathé, C. R., & Putois, B. (2024). Impact of confrontation to patient suffering and death on wellbeing and burnout in professionals: A cross-sectional

- study. *BMC Palliative Care*, 23(1), 74. <https://doi.org/10.1186/s12904-024-01393-8>
- Dijxhoorn, A.-F.Q., Brom, L., Van Der Linden, Y. M., Leget, C., & Rajmakers, N. J. (2021). Prevalence of burnout in healthcare professionals providing palliative care and the effect of interventions to reduce symptoms: A systematic literature review. *Palliative Medicine*, 35(1), 6–26. <https://doi.org/10.1177/0269216320956825>
- Elina, H., Sofia, E., Tricia, C. S., Jaana-Maija, K., Katarina, K., & Anu, S.-J. (2024). Patients receiving palliative care and their experiences of encounters with healthcare professionals. *OMEGA - Journal of Death and Dying*, 89(2), 497–513. <https://doi.org/10.1177/0030222821077486>
- Ferreira-Galán, V., Navarro-Haro, M. V., Peris-Baquero, Ó., Guillén-Mariñ, S., de Luna-Hermoso, J., & Osma, J. (2022). Assessment of acceptability and initial effectiveness of a unified protocol prevention program to train emotional regulation skills in female nursing professionals during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(9), 5715.
- Forster, M., Bertolucci, J., & James, S. (2023). The journey towards active self-care and empowerment: Insights from a thematic analysis of a women's therapeutic expressive writing group (UK). *Counselling and Psychotherapy Research*, 23(3), 664–671. <https://doi.org/10.1002/capr.12605>
- Frattaroli, J. (2006). Experimental disclosure and its moderators: A meta-analysis. *Psychological Bulletin*, 132(6), 823–865. <https://doi.org/10.1037/0033-2909.132.6.823>
- Frisina, P. G., Borod, J. C., & Lepore, S. J. (2004). A meta-analysis of the effects of written emotional disclosure on the health outcomes of clinical populations. *The Journal of Nervous and Mental Disease*, 192(9), 629. <https://doi.org/10.1097/01.nmd.0000138317.30764.63>
- Glass, O., Dreusicke, M., Evans, J., Bechard, E., & Wolever, R. Q. (2019). Expressive writing to improve resilience to trauma: A clinical feasibility trial. *Complementary Therapies in Clinical Practice*, 34, 240–246. <https://doi.org/10.1016/j.ctcp.2018.12.005>
- Guba, E. G., & Lincoln, Y. S. (2001). *Guidelines and checklist for constructivist (aka fourth generation) evaluation*. [https://cnxus.org/wp-content/uploads/2022/04/Guba20and20Lincoln\\_Constructivist20Evaluation.pdf](https://cnxus.org/wp-content/uploads/2022/04/Guba20and20Lincoln_Constructivist20Evaluation.pdf)
- Hill, R. C., Dempster, M., Donnelly, M., & McCorry, N. K. (2016). Improving the wellbeing of staff who work in palliative care settings: A systematic review of psychosocial interventions. *Palliative Medicine*, 30(9), 825–833. <https://doi.org/10.1177/0269216316637237>
- Johnson, S. M., Moser, M. B., Beckes, L., Smith, A., Dalgleish, T., Halchuk, R., Hasselmo, K., Greenman, P. S., Merali, Z., & Coan, J. A. (2013). Soothing the threatened brain: Leveraging contact comfort with emotionally focused therapy. *PLoS ONE*, 8(11), e79314. <https://doi.org/10.1371/journal.pone.0079314>
- Kaur, A., Sharma, M. P., & Chaturvedi, S. K. (2018). Professional quality of life among professional care providers at cancer palliative care centers in Bengaluru, India. *Indian Journal of Palliative Care*, 24(2), 167.
- Khayyat-Abuaita, U., Paivio, S., Pascual-Leone, A., & Harrington, S. (2019). Emotional processing of trauma narratives is a predictor of outcome in emotion-focused therapy for complex trauma. *Psychotherapy*, 56. <https://doi.org/10.1037/pst0000238>
- Kilvington, A., Allen, S., & Kyriakopoulos, A. (2023). Exploring the effects of written emotional disclosures (WED) on healthcare workers' (HCWs) mental health symptoms in the UK : A feasibility study. *Counselling and Psychotherapy Research*, n/a(n/a). <https://doi.org/10.1002/capr.12719>
- Kukucska, D., Whitehall, J., Shorter, G. W., Howlett, N., Wyld, K., & Chater, A. M. (2023). A systematic review of positive psychology interventions (PPIs) to improve the health behaviours, psychological wellbeing and/or physical health of police staff. *Journal of Police and Criminal Psychology*, 38(3), 728–742. <https://doi.org/10.1007/s11896-023-09579-1>
- Lai, J., Song, H., Wang, Y., Ren, Y., Li, S., Xiao, F., Liao, S., Xie, T., & Zhuang, W. (2023). Efficacy of expressive writing versus positive writing in different populations: Systematic review and meta-analysis. *Nursing Open*, 10(9), 5961–5974. <https://doi.org/10.1002/nop2.1897>
- Lee, Y., Kim, D., & Lim, J.-E. (2023). Do expressive writing interventions have positive effects on Koreans?: A meta-analysis. *Frontiers in Psychiatry*, 14, 1204053. <https://doi.org/10.3389/fpsyg.2023.1204053>
- Manning, J., & Kunkel, A. (2014). Making meaning of meaning-making research: Using qualitative research for studies of social and personal relationships. *Journal of Social and Personal Relationships*, 31(4), 433–441. <https://doi.org/10.1177/0265407514525890>
- Marti, L., Hünerwadel, E., Hut, B., Christ, S. M., Däster, F., Schettle, M., Seiler, A., Blum, D., & Hertler, C. (2024). Characteristics and clinical challenges in patients with substance use disorder in palliative care—Experience from a tertiary center in a high-income country. *BMC Palliative Care*, 23(1), 28. <https://doi.org/10.1186/s12904-024-01366-x>
- Na, K. R., & So-Young, C. (2023). Factors Influencing End-of-Life Care Stress in Nurses. | Asian Oncology Nursing | EBSCOhost. <https://doi.org/10.5388/aon.2023.23.4.207>
- Oliveira, C., Lourenço, D., Sotero, L., & Relvas, A. P. (2024). Caregivers' concerns through health professionals' eyes. *Palliative & Supportive Care*, 22(3), 499–510. <https://doi.org/10.1017/S1478951523001864>
- Park, C. L., Kubzansky, L. D., Chafouleas, S. M., Davidson, R. J., Keltner, D., Parsafar, P., Conwell, Y., Martin, M. Y., Hamner, J., & Wang, K. H. (2023). Emotional well-being: What it is and why it matters. *Affective Science*, 4(1), 10–20. <https://doi.org/10.1007/s42761-022-00163-0>
- PehlivanSaribudak, T. (2023). Compassion fatigue in nurses providing palliative cancer care and coping strategies to prevent and manage it. *Seminars in Oncology Nursing*, 39(6), 151501. <https://doi.org/10.1016/j.soncn.2023.151501>
- Pennebaker, J., & Evans, J. (2014). *Expressive Writing : Words That Heal*. Idyll Arbor.
- Pennebaker, J. W. (1997). Writing about emotional experiences as a therapeutic process. *Psychological Science*, 8(3), 162–166. <https://doi.org/10.1111/j.1467-9280.1997.tb00403.x>
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95(3), 274.
- Prentice, S., Elliott, T., Dorstyn, D., & Benson, J. (2023). Burnout, wellbeing and how they relate: A qualitative study in general practice trainees. *Medical Education*, 57(3), 243–255. <https://doi.org/10.1111/medu.14931>
- Procaccia, R., Segre, G., Tamanza, G., & Manzoni, G. M. (2021). Benefits of expressive writing on Healthcare Workers' Psychological Adjustment during the COVID-19 Pandemic. *Frontiers in Psychology*, 12, 624176. <https://doi.org/10.3389/fpsyg.2021.624176>
- Rattner, M., & Cait, C.-A. (2024). Nonphysical suffering: An under-resourced and key role for hospice and palliative care social workers. *Journal of Social Work in End-of-Life & Palliative Care*, 20(1), 8–25. <https://doi.org/10.1080/15524256.2023.2272590>
- Roth, G., Vansteenkiste, M., & Ryan, R. M. (2019). Integrative emotion regulation: Process and development from a self-determination theory perspective. *Development and Psychopathology*, 31(3), 945–956.
- Saldanha, M. F., & Barclay, L. J. (2021). Finding meaning in unfair experiences: Using expressive writing to foster resilience and

- positive outcomes. *Applied Psychology: Health and Well-Being*, 13(4), 887–905. <https://doi.org/10.1111/aphw.12277>
- Smyth, J. M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology*, 66(1), 174–184. <https://doi.org/10.1037/0022-006X.66.1.174>
- Tang, M. L., Goh, H. S., Zhang, H., & Lee, C. N. (2021). An exploratory study on death anxiety and its impact on Community Palliative Nurses in Singapore. *Journal of Hospice & Palliative Nursing*, 23(5), 469–477. <https://doi.org/10.1097/NJH.0000000000000078>
- Tonarelli, A., Cosentino, C., Tomasoni, C., Nelli, L., Damiani, I., Goisis, S., Sarli, L., & Artioli, G. (2018). Expressive writing. A tool to help health workers of palliative care. *Acta Bio Medica : Atenei Parmensis*, 89(Suppl 6), 35-42. <https://doi.org/10.23750/abm.v89i6-S.7452>
- Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*, 19(6), 349–357.
- Zhang, C., Xu, S., Wen, X., & Liu, M. (2023). The effect of expressive writing on Chinese cancer patients: A systematic review and meta-analysis of randomized control trials. *Clinical Psychology & Psychotherapy*, 30(6), 1357–1368. <https://doi.org/10.1002/cpp.2878>

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