

---

# Death as a Professional Challenge: An Analysis of the Relationship Between Exposure to Patient Death, Occupational Burnout, and Perceptions of Death Among Obstetrics and Gynecology Clinicians

---

[Magdalena Mikulska](#)\*, [Edyta Stefanko-Palka](#), [Iwona Sadowska-Krawczenko](#), [Aldona Katarzyna Jankowska](#)

Posted Date: 28 September 2025

doi: 10.20944/preprints202509.2289.v1

Keywords: death; trauma exposure; burnout



Preprints.org is a free multidisciplinary platform providing preprint service that is dedicated to making early versions of research outputs permanently available and citable. Preprints posted at Preprints.org appear in Web of Science, Crossref, Google Scholar, Scilit, Europe PMC.

Copyright: This open access article is published under a Creative Commons CC BY 4.0 license, which permit the free download, distribution, and reuse, provided that the author and preprint are cited in any reuse.

Disclaimer/Publisher's Note: The statements, opinions, and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions, or products referred to in the content.

Article

# Death as a Professional Challenge: An Analysis of the Relationship Between Exposure to Patient Death, Occupational Burnout, and Perceptions of Death Among Obstetrics and Gynecology Clinicians

Magdalena Mikulska <sup>1,\*</sup>, Edyta Stefanko-Palka <sup>1</sup>, Iwona Sadowska-Krawczenko <sup>2</sup>  
and Aldona Katarzyna Jankowska <sup>1</sup>

<sup>1</sup> Department of Medical Communication and Medical Humanities; Collegium Medicum, Nicolaus Copernicus University in Toruń, Bydgoszcz, Poland

<sup>2</sup> Department of Neonatology, Collegium Medicum, Nicolaus Copernicus University in Toruń, Bydgoszcz

\* Correspondence: magdalena.mikulska@cm.umk.pl; Tel.: +48-600272481

## Highlights

### What are the main findings?

- Occupational burnout in OB/GYN clinicians is strongly associated with exposure to patient death and negative perceptions of death.
- Professional fulfillment correlates with positive perceptions of death and professional development, even under intensive exposure to death.

### What is the implication of the main finding?

- Professional fulfillment may serve as a protective factor against the negative impact of death exposure.
- The paradoxical link between burnout and fulfillment highlights the need for systemic interventions supporting clinicians' well-being.

## Abstract

**Introduction:** Healthcare professionals face high stress, with patient death being a key factor in burnout, especially in OB/GYN, where it contrasts with expectations of life and birth. **Objective:** To examine how exposure to death, perceptions of death, and emotion regulation training relate to burnout and professional fulfillment. **Methods:** Cross-sectional study with 138 OB/GYN clinicians using an author-developed questionnaire. **Findings:** Burnout correlated strongly with death impact, while fulfillment correlated with development and positive death perception. Unexpectedly, burnout and fulfillment were positively related. Training showed no significant effects. **Conclusions:** Fulfillment may buffer death exposure despite complex dynamics..

**Keywords:** death; trauma exposure; burnout

---

## 1. Introduction

### 1.1. The Context of Challenges in Healthcare

Contemporary healthcare has become one of the most demanding work environments. Its character is undoubtedly shaped by the dynamic pace of work and change, the rapid development of medicine, high levels of stress inherent to the profession, but also fear of litigation, as well as the chronic strain and overload of healthcare professionals [1]. They are continuously exposed to long working hours, shift work, staffing shortages, increasing bureaucracy, and frequent interactions with

patients and their families in critical situations - all of which markedly affect their mental and physical well-being [1].

The rise in burnout rates among healthcare professionals is both concerning and alarming. In 2022, nearly half of healthcare professionals in the United States reported symptoms of burnout, which constitutes a significant increase compared to the pre-COVID-19 period [1]. This sharp increase has been attributed not only to the direct effects of the pandemic - surges in patient volume, longer hours, shortages of protective equipment - but also to systemic gaps and organizational difficulties in work design and support (or its lack) for healthcare professionals that predated the pandemic and have become more visible since [1].

According to the World Health Organization (WHO), as defined in ICD-11, burnout (code QD85) is a syndrome resulting from chronic, ineffectively managed workplace stress. It is characterized by three key dimensions: emotional exhaustion (feeling emotionally overextended and depleted), depersonalization (an indifferent, cynical, or detached attitude toward care recipients), and reduced sense of personal accomplishment (feelings of incompetence and lack of achievement) [1]. It is also known that burnout significantly affects the mental health of healthcare professionals (increasing the risk of anxiety, depression, PTSD, insomnia, and suicidal ideation) and weakens the quality and safety of care, leading to more medical errors and lowering patient satisfaction and perceived safety (doi: 10.1001/jamanetworkopen.2024.43059).

### *1.2. Specifics of Work in Obstetrics and Gynecology*

Obstetrics and gynecology clinicians appear particularly exposed to unique stressors related to the cycle of life and death, which set their experiences apart from those of other specialties [4]. Unlike medical disciplines where a patient's death may be viewed as a natural end of life (e.g., geriatrics or palliative care) or even anticipated, in obstetrics and gynecology, pregnancy loss, miscarriage, stillbirth, and perinatal death often concern young patients or their offspring. These events run counter to the perceived order of the world but also to expectations surrounding this profession and specialty [4].

Such deaths are especially traumatic and can trigger intense emotions, including guilt and helplessness, as well as the questioning of one's professional competence [4]. Death occurring in a medical field that is - in principle - associated with birth and hope violates deeply rooted social and personal expectations regarding the natural order of life. This can lead to a deeper existential and professional crisis than in specialties where death is more readily anticipated. Trauma in OB/GYN is amplified not only by the loss itself but also by the internal contradiction of death occurring in a domain dedicated to new life. This may evoke a sense of failure not only professionally but existentially, undermining fundamental beliefs about the natural order and the purpose in the chosen field of work [4].

Studies indicate that obstetricians and gynecologists are among the specialties with the highest rates of occupational burnout - often exceeding 40% and even 75% [6]. Additional burdens - such as personal work standards and expectations, the taboo surrounding death, cumulative losses, lack of support for clinicians, as well as insufficient training in bereavement support, and the aforementioned fear of litigation - further intensify the psychological and emotional consequences of exposure to death [4].

### *1.3. The Role of Death Perception and Professional Fulfillment*

How healthcare professionals perceive death (e.g., as a natural process, a failure, a terrifying event, or a relief for the suffering) can significantly affect their ability to cope with occupational trauma and their level of occupational burnout [5]. Negative perceptions of death - often tied to anxiety and dejection - correlate with higher burnout [5].

In medical environments that view death as a failure and seek to assign "blame" and "responsibility" for death to an individual, the clinicians experience even higher stress [5]. Such perceptions are not only a personal burden; they also reflect and reinforce systemic approaches to

medicine that prioritize intervention and treatment over care and the avoidance of medically futile treatment. In such a system, success is often defined as preventing death at all costs, framing death as a professional failure regardless of context [5]. In contrast, in settings such as hospices - where death is accepted as a natural process - clinicians may experience greater fulfillment and lower burnout, despite more frequent exposure to dying [15]. Frequent exposure to patient death is recognized as one of the most psychologically taxing experiences for healthcare professionals, often leading to acute emotional and occupational disruption [5]. In OB/GYN, the loss of a patient - especially a child - is particularly difficult, eliciting guilt, helplessness, and isolation, and can prompt consideration of leaving clinical practice [4].

While exposure to death in OB/GYN units is less frequent than in many other departments, the psychological consequences for clinicians are comparable. They include secondary traumatic stress (STS) - linked to vicarious exposure to patients' trauma - and occupational grief, which is often overlooked and insufficiently supported [5]. STS can exacerbate burnout, undermine the sense of competence and self-worth, and lead to symptoms such as depression, anxiety, intrusive thoughts, and avoidance behaviors [5]. The lack of formal avenues for expressing grief and a culture of emotional suppression in medical environments deepens the problem, contributing to complicated grief and compassion fatigue [5].

At the same time, research indicates that positive perceptions of death can be associated with professional development and a sense of professional fulfillment [15]. A sense of professional fulfillment - defined as satisfaction and meaning derived from work - is crucial for the psychological well-being of employees [8]. It may stem from the sense of making a significant and beneficial impact on patients (their comfort and quality of life), building deeper relationships, and alleviating suffering holistically - even in the face of death [8].

Professional development, including education and opportunities to hone skills, is strongly linked to a sense of fulfillment [22]. An increase in the level of education among nurses and midwives may contribute to a greater sense of satisfaction and impact [22].

An intriguing phenomenon is the observed paradoxical positive correlation between burnout and a sense of professional fulfillment, suggesting that the intense engagement that can lead to exhaustion is simultaneously a source of a deep sense of meaning and satisfaction [12]. This paradox may reflect constructs known in the literature as "moral injury" and the "heroic ethos" of the medical professions. Moral injury refers to psychological suffering arising from actions or circumstances that violate an individual's internal ethical code - often within systemic constraints, lacking resources, or pressures to act against one's values. In healthcare, this may mean, for instance, the inability to provide adequate help, resulting in strong feelings of guilt, shame, or helplessness. Simultaneously, many healthcare professionals operate with a strong sense of mission - the so-called heroic ethos - entailing willingness to make sacrifices for the patient's good.<sup>41-44</sup> While this mindset is a source of a deep sense of meaning and professional identity, it can also increase the risk of overload and burnout. In practice, those who are most engaged, empathic, and competent may be the most vulnerable to long-term emotional consequences. In this context, the positive correlation between burnout and fulfillment becomes understandable - profound engagement brings both satisfaction and cost [12]. For many healthcare professionals, a deep investment in patients' well-being is a source of both burnout and a strong sense of purpose. This phenomenon aligns with the concept of post-traumatic growth (PTG), where positive psychological changes arise from grappling with traumatic events, resulting in a sense of new personal strength and appreciation of life [8].

Nevertheless, the aforementioned nonmedical challenges and staffing shortages can lead to work overload that, paradoxically, may diminish job satisfaction - despite a sense of being needed [23].

#### *1.4. Research Gap and Aim of the Present Study*

Despite a growing body of research on occupational burnout and its relationship with exposure to death, comprehensive analyses specific to OB/GYN clinicians - addressing both negative

consequences (burnout, negative perceptions of death) and potential protective factors (professional fulfillment, positive perceptions of death, professional development) - remain scarce. Moreover, the effectiveness of interventions such as emotion regulation training for this specific professional group - and their impact on coping with death - has not been sufficiently examined.

This study aims to address this gap by analyzing complex relationships among exposure to death in everyday work, occupational burnout, perceptions of death, and a sense of professional fulfillment among OB/GYN clinicians, as well as by assessing the impact of emotion regulation training.

### *1.5. Research Questions and Hypotheses*

Based on the above, the study posed the following five research questions and hypotheses:

**RQ1:** What is the correlation between occupational burnout and OB/GYN clinicians' perceptions of death?

**H1:** Occupational burnout is positively correlated with negative perceptions of death among OB/GYN clinicians.

**H0:** Occupational burnout is not correlated with OB/GYN clinicians' perceptions of death.

**RQ2:** What is the relationship between OB/GYN clinicians' sense of professional fulfillment and their professional development?

**H1:** Professional development is strongly and positively correlated with a sense of professional fulfillment among OB/GYN clinicians.

**H0:** Professional development does not affect the sense of professional fulfillment among OB/GYN clinicians.

**RQ3:** How does occupational burnout affect OB/GYN clinicians' perceptions of death?

**H1:** Occupational burnout is positively correlated with negative perceptions of death among OB/GYN clinicians.

**H0:** Occupational burnout does not affect OB/GYN clinicians' perceptions of death.

**RQ4:** Is professional fulfillment related to more positive perceptions of death among OB/GYN clinicians?

**H1:** A sense of professional fulfillment is positively correlated with positive perceptions of death among OB/GYN clinicians.

**H0:** A sense of professional fulfillment is not correlated with positive perceptions of death among OB/GYN clinicians.

**RQ5:** How does the intensity of professional engagement (or burnout) correlate with perceptions of death in the context of work in healthcare?

**H1:** The intensity of professional engagement is positively correlated with perceptions of death in the healthcare context.

**H0:** The intensity of professional engagement is not correlated with perceptions of death in the healthcare context.

**RQ6:** Does participation in emotion regulation training differentiate levels of occupational burnout and perceptions of death among OB/GYN clinicians?

**H1:** Participation in emotion regulation training significantly differentiates levels of burnout and perceptions of death among OB/GYN clinicians.

**H0:** Participation in emotion regulation training does not differentiate levels of burnout and perceptions of death among OB/GYN clinicians.

**Additional hypothesis:** Personal beliefs about death are significantly associated with the intensity of emotions experienced by OB/GYN clinicians—perceiving death as natural or as the beginning of something new is associated with lower levels of anxiety and dejection, whereas perceiving it as unjust or terrifying correlates with higher intensity of negative emotions.

## 2. Materials and Methods

### 2.1. Participants

The study included 138 individuals employed in healthcare institutions, in OB/GYN hospital departments in the Pomeranian Voivodeship, Poland. Most participants were women. Participant age ranged from 25 to 62 years; work experience ranged from 1 to 38 years.

200 questionnaires were distributed; 138 were returned. The survey was anonymous and addressed to all members of the medical teams on the participating OB/GYN wards; however, the occupational composition was dominated by midwives and nurses.

### 2.2. Procedure

Participants completed an anonymous paper-based questionnaire. The study had a cross-sectional design. Data were collected using anonymous questionnaires. Participants were informed in the questionnaire about the study's purpose. Participation was voluntary. The study received approval from the Research Ethics Committee.

### 2.3. Measures

The author-designed survey comprised the following components:

- **Author-designed scale of death impact:** assessment of the impact of a patient's death on professional and personal life (on a 1–10 scale) (hereafter: overall death-impact index).
- **Occupational burnout:** assessed using author-designed items inspired by the OLBI.
- **Sense of fulfillment and professional development:** two separate 1–10 scale items.
- **Perception of death:** a set of 20 adjectives (10 positive, 10 negative), from which participants selected descriptors best reflecting their perception of death.
- **Participation in emotion regulation training:** categorical variable (yes/no).
- **Open-ended questions:** to better understand the difficulties and needs of the participants in the context of death experiences at work.

### 2.4. Statistical Analysis

Pearson's or Spearman's correlation coefficients (depending on distribution) were used to analyze correlations between variables. Between-group comparisons (training vs. no training) for occupational burnout levels, perception of death, sense of professional fulfillment, and professional development used the nonparametric Mann–Whitney U test, as the normality assumptions were not met or due to the small size of one of the groups. Statistical significance was set at  $p < 0.05$ .

### 3. Results

Pearson correlations revealed significant associations between the study variables. Results are summarized in Table 1.

**Table 1.** Pearson's correlation matrix among occupational burnout, death impact, death perception, professional fulfillment, and professional development.

Variable	Occupational burnout	Overall death-impact index	Negative perception of death	Professional fulfillment	Professional development	Positive perception of death
Occupational burnout		1				
Overall death-impact index	0.9 (p < 0.001)		1			
Negative perception of death	0.229 (p < 0.007)	0.2 (p = 0.019)		1		
Professional fulfillment	0.292 (p < 0.01)	0.549 (p < 0.001)			1	
Professional development				0.94 (p < 0.001)		1
Positive perception of death				0.3 (p < 0.001)	0.35	1

Correlation coefficients (r) and p values are shown in parentheses. Empty cells denote non-significant correlations or no data in the provided material.

#### 3.1. Occupational Burnout

- A strong positive correlation was found between burnout and the overall death-impact index among OB/GYN clinicians ( $r = 0.90$ ,  $p < 0.001$ ). Thus, the greater the burnout, the greater the reported impact of death on their well-being. This exceptionally high correlation may indicate a specific sensitivity of OB/GYN clinicians to death-related trauma, likely due to the nature of their work centered on bringing forth life. In OB/GYN, where clinicians are involved in the processes of birth, patient death - especially perinatal - may be perceived as a profound failure or an unnatural event [4]. This confrontation with loss in a domain associated with life can lead to heightened emotional and psychological burden in the face of death.
- While other studies have found significant correlations between death-related trauma and burnout (e.g.,  $\beta = 0.515$  for mental health professionals<sup>11</sup>), the correlation of 0.90 in the present study is much stronger than typically reported in general healthcare populations.
- Occupational burnout was significantly positively correlated with negative perceptions of death ( $r = 0.229$ ,  $p = 0.007$ ), suggesting that those experiencing burnout more often hold negative views of death.
- A positive correlation was also observed between burnout and a sense of professional fulfillment ( $r = 0.292$ ,  $p < 0.01$ ). Although seemingly paradoxical, this may reflect a phenomenon wherein intense engagement and dedication - even when leading to exhaustion - are simultaneously sources of deep meaning and satisfaction. For highly engaged professionals, the high "cost of caring"<sup>19</sup> is inherently tied to a sense of meaning and impact on the quality of care and/or patients' lives, which may reflect post-traumatic growth or compassion satisfaction [8].

#### 3.2. Professional Fulfillment

- A sense of professional fulfillment correlates strongly and positively with professional development ( $r = 0.94$ ,  $p < 0.001$ ), suggesting that those who grow in their roles experience greater work satisfaction.
- A moderate positive correlation was found between professional fulfillment and the overall death-impact index ( $r = 0.549$ ,  $p < 0.001$ ). This indicates that the higher the fulfillment, the greater

the impact of death among OB/GYN clinicians. An alternative explanation is also plausible: those who encounter death-related issues more frequently may experience greater fulfillment if they can ascribe meaning to such experiences.

- Professional fulfillment positively correlates with positive perceptions of death ( $r = 0.30$ ,  $p < 0.001$ ), suggesting that fulfilled professionals are more likely to use positive descriptors for death or hold a more accepting view of it.

### 3.3. Perception of Death

- Positive perceptions of death correlated positively with professional development ( $r = 0.35$ ) and professional fulfillment ( $r = 0.30$ ), which may indicate that those who develop professionally and feel fulfilled adopt a more accepting stance toward death.
- Negative perceptions of death correlated positively with burnout ( $r = 0.23$ ,  $p = 0.007$ ) and with the overall death-impact index ( $r = 0.20$ ,  $p = 0.019$ ), indicating that those experiencing burnout and those more affected by death are more likely to view it negatively.

### 3.4. Group Comparisons (Training vs. no Training): Mann–Whitney U Test Results

The Mann-Whitney U analyses examined differences between OB/GYN clinicians who had completed emotion regulation training and those who had not, with respect to positive and negative perceptions of death, burnout, professional fulfillment, and professional development.

**Table 2.** Positive and negative perceptions of death by training status.

Variable	Group (training vs. no training)	N	Mean rank	Sum of ranks	Mann-Whitney U	Wilcoxon W	Z	Asymptotic significance (two-tailed)
Positive perception	1 (Trained)	52	72.58	3774	2076	5817	-0.746	0.456
	2 (Not trained)	86	67.64	5817				
Negative perception	1 (Trained)	52	74.44	3871	1979	5720	-1.158	0.247
	2.00 (Not trained)	86	66.51	5720				
Total		138						

Based on the reported Mann-Whitney U statistics, there were no statistically significant differences between clinicians who completed emotion regulation training and those who did not in either positive ( $p = 0.456$ ) or negative ( $p = 0.247$ ) perceptions of death.

**Table 3.** Burnout by training status.

Total N	Mann-Whitney U	Wilcoxon W	Standard error	Standardized test statistic (Z)	Asymptotic significance (two-tailed)
138	2339	6080	226.982	0.454	0.65

No statistically significant differences between groups concerning burnout ( $p = 0.650$ ), well above the 0.05 threshold.

**Table 4.** Professional fulfillment by training status.

Total N	Mann-Whitney U	Wilcoxon W	Standard error	Standardized test statistic (Z)	Asymptotic significance (two-tailed)
138	1937	5678	226.913	-1.318	0.188

No statistically significant differences in professional fulfillment levels between groups ( $p = 0.188$ ).

**Table 5.** Professional development by training status.

Total N	Mann-Whitney U	Wilcoxon W	Standard error	Standardized test statistic (Z)	Asymptotic significance (two-tailed)
138	1859	5600	226.757	-1.663	0.096

This result is near the threshold of statistical significance ( $p = 0.096$ ), indicating a tendency toward differentiation between groups with and without training, though it does not reach the conventional threshold ( $p < 0.05$ ).

**Conclusion from group comparisons:** Emotion regulation training did not significantly affect OB/GYN clinicians' perceptions of death (positive or negative), burnout levels, or sense of professional fulfillment. Only a trend toward a higher sense of professional development among trained participants was observed, without reaching the conventional statistical significance threshold.

## 4. Discussion

### 4.1. Interpretation of the Main Correlational Findings in the Context of the Literature

The present findings confirm a strong, direct correlation between burnout and the overall death-impact index ( $r = 0.90$ ), as well as negative perceptions of death ( $r = 0.229$ ). This aligns with extensive literature indicating that exposure to trauma associated with patient death is a key risk factor for burnout and secondary traumatic stress among OB/GYN clinicians [5,37–40].

In the context of obstetrics and gynecology - where death often concerns young patients or infants - this burden is particularly intense, frequently provoking guilt, helplessness, and questioning of one's competence [4]. The exceptionally high correlation ( $r = 0.90$ ) between burnout and the impact of death in this sample of OB/GYN clinicians is remarkable. While other studies report significant associations between death-related trauma and burnout (e.g.,  $\beta = 0.515$  among mental health professionals<sup>11</sup>), a correlation of 0.90 is much stronger than typically observed in general healthcare populations. This may indicate a specific sensitivity of this group to death-related trauma, possibly due to the birth-centered nature of their work. For OB/GYN clinicians, the impact of a patient's death is not merely a stressor; it directly and profoundly challenges their professional identity, purpose, and sense of mission, leading to severe burnout [4].

The study also found strong correlations between professional fulfillment and professional development ( $r = 0.94$ ) and between professional fulfillment and positive perceptions of death ( $r = 0.30$ ). This may suggest that opportunities for growth and a mature, more accepting approach to liminal experiences such as death are important sources of job satisfaction among OB/GYN clinicians. The literature emphasizes that a sense of impact - awareness that everyday actions meaningfully affect patients' health, safety, and experiences - is critical for healthcare professionals [8]. In obstetrics and gynecology, where clinicians accompany both the joy of birth and the tragedy of loss, this impact has a special significance. Providing dignified care in liminal situations, supporting women (or both parents) emotionally, as well as developing competence in these areas, can be important sources of a sense of meaning and fulfillment. At the same time, as the results suggest, such engagement carries a risk of overload and burnout if not accompanied by adequate support and space for reflection and recovery [15].

An interesting and seemingly paradoxical finding is the positive correlation between burnout and professional fulfillment ( $r = 0.292$ ). This suggests that individuals who invest intensely in their work - thereby risking burnout - may simultaneously experience greater professional satisfaction. This paradox may reflect the aforementioned phenomena of "moral injury" and the "heroic ethos" in the medical professions, where fulfillment is achieved at the cost of personal well-being. Intense engagement in the face of suffering and death, although exhausting, reinforces a sense of meaning and professional identity [12].

This finding shows that reducing workload alone will not resolve this complex correlation. Effective interventions should both protect against burnout and support the intrinsic need to act with meaning and efficacy - without devolving into self-sacrificing patterns.

A key result consistent with the above is the lack of statistically significant differences in burnout, perceptions of death (positive and negative), and professional fulfillment between those who had ever participated in emotion regulation training and those who had never done so. Only a tendency ( $p = 0.096$ ) toward higher professional development was observed among previously trained clinicians.

The absence of a significant training effect - contrasting with literature pointing to the efficacy of such interventions<sup>2</sup> - may suggest that one-off or short-term individual training is insufficient to counter deeply rooted systemic issues and chronic exposure to trauma in obstetrics and gynecology. The effectiveness of interventions depends on their quality, intensity, and specificity. Many studies indicate the benefits of long-term psychotherapeutic programs<sup>28</sup>, comprehensive resilience training<sup>1</sup>, and training in bereavement and palliative care.<sup>2</sup>

This discrepancy suggests that while developing emotion regulation skills is essential, the actual impact of a single training may be limited, if not embedded in a broader system-level support. Highly stressful environments, chronic overload, and frequent confrontation with death can overshadow the effects of short-term training. This highlights the gap between the theoretical efficacy of interventions and their practical effectiveness in day-to-day clinical realities. Burnout among healthcare professionals is to a large extent driven by organizational factors such as staffing shortages, work overload, lack of supervisory support, and a culture of silence around suffering.<sup>1</sup> Even the best-designed individual training may prove insufficient without systemic changes in care structures, leadership styles, and communication norms - with an emphasis on developing medical communication, patient relationships, and teamwork.

Finally, what researchers found particularly noteworthy was that participants did not list miscarriages as instances of death at work. This may reflect a specific way death is perceived in obstetrics and gynecology - fetal death at early gestation can be marginalized or treated as a medical event rather than an existential one. This classification may stem from cultural and linguistic factors (e.g., euphemisms such as "pregnancy loss") and from psychological needs to distance oneself from emotionally burdensome experiences. The literature notes that miscarriage is often a "disenfranchised grief" that is not always acknowledged - socially or professionally - as a real loss (doi:10.1016/j.siny.2012.09.001) [35,36]. This can lead to underestimating these events in one's professional experience, which impedes their emotional processing.

#### 4.2. Implications for Practice

The high level of burnout observed among OB/GYN clinicians indicates an urgent need to implement comprehensive, system-level support programs. Obstetric units - often associated with "happy endings" - are also settings for liminal experiences such as miscarriage, intrauterine fetal demise, and neonatal death. Assisting patients through such events, often without the possibility of changing their course, can result in deep occupational grief and feelings of helplessness.

Support programs should not be limited to stress reduction alone. It is essential to help clinicians develop skills for coping with loss - emotionally and existentially - and to promote seeing death as a natural part of life, regardless of its length. Components such as education about a "good death", communication with families in liminal situations, and integrating palliative care principles into patient care can help clinicians build a sense of meaning and agency despite difficult experiences [8].

In light of the present finding that emotion regulation training did not significantly affect burnout, perceptions of death, or fulfillment, it is worth emphasizing that effectiveness depends not only on content but also - crucially - on quality, duration, and tailoring to the specific professional group. Short-term or one-off training may be insufficient against the chronic stress experienced by OB/GYN clinicians, especially in the context of perinatal loss [4]. Effective programs should be long-term and multi-level, combining individual components (e.g., mindfulness training, self-awareness

development, setting emotional boundaries) with organizational ones (e.g., regular debriefings, support groups, improved working conditions, reduced bureaucratic pressure).<sup>1</sup> It is essential to move away from symbolic, one-off actions in favor of durable solutions embedded within organizational culture.

Interventions should integrate education about trauma and grief, resilience training, and concrete structural support, including a safe psychological environment, responsive leadership, and workload management systems. Only an approach that embraces the full scope of clinicians' professional experience - not only symptoms but sources of overload - can meaningfully improve their well-being and the quality of care for patients and families.

These conclusions are supported by respondents' answers to open-ended questions about the difficulties and needs associated with experiencing patient death during clinical shifts:

"After such an experience, I would need psychological support."

"No one teaches us how to be present or what to do. Everything is our own intuitively developed experience."

"I would like to be able to talk to a psychologist."

"After such a shift, it's hard for me to go home and be a mother and wife without thinking that someone has lost a child."

"The thought often returns: did I do everything that could have been done?"

"There is no space at work to pause even briefly after such an event."

"I feel left to myself."

"After such situations, I have trouble sleeping; I keep replaying the course of my shift."

"I wish our team talked more about how we cope emotionally; these topics aren't addressed, and I suspect everyone experiences them in their own way and is alone in it."

"At work I must be professional, but inside I experience deep sadness."

"Training on how to talk to families at the time of a child's death would be helpful."

"After a patient's death, it's hard for me to immediately take care of the next one, but that's what the unit's reality requires."

"I feel that these experiences accumulate and, over the years, affect my psyche."

"I lack confidence that healthcare professionals also have the right to emotional support, not just patients and their loved ones."

"I usually cut off thinking about it and dive into sports activities."

#### 4.3. Limitations

Although this study offers important and practical insights, several limitations must be taken into account. First, the nature of the analysis precludes establishing causal relationships among the examined variables. Second, the sample size (N = 138), while sufficient for basic analyses, may be too small to detect subtler relationships - particularly regarding emotion regulation training effects.

Another limitation is the lack of detailed data on the type, intensity, and duration of these training programs, which hinders comparisons with other studies and limits our ability to draw precise conclusions about the effectiveness of these interventions. Additionally, the absence of longitudinal follow-up prevents assessment of the durability of potential effects.

Finally, the use of self-report measures entails the risk of cognitive biases and distortions - such as social desirability bias and difficulty in accurately assessing one's own emotional states.

The overrepresentation of midwives and nurses may limit generalizability to physicians.

#### 4.4. Future Study Directions

In light of the findings and limitations of this study, several key directions for future research should be considered. First, longitudinal studies with larger samples are needed to assess causal

relationships and the long-term effects of interventions for OB/GYN clinicians. Concurrently, qualitative studies could provide deeper insight into experiences surrounding patient death - particularly in the context of perinatal loss - as well as into coping strategies and barriers to implementing system-level support.

There is also a need to design and conduct randomized controlled trials (RCTs) to evaluate specific, well-defined, and OB/GYN-tailored interventions - such as perinatal loss and bereavement training, resilience programs, trauma-focused therapies, and training aimed at cultivating positive perceptions of death and meaning in work.

Subsequent steps should include analysis of moderating and mediating variables that may shape the relationship between exposure to death, occupational burnout, and professional fulfillment. Particular attention should be paid to social support, organizational culture, professional autonomy, experience working with bereaved patients, as well as length of service, and individual psychological resources.

Future research should strive to integrate individual-level and system-level perspectives to develop more effective, multi-layered strategies supporting health professionals who face loss and suffering in everyday practice.

## 5. Conclusions

This study underscores that exposure to patient death constitutes a significant and distinctive professional challenge for OB/GYN clinicians. The strong correlations between exposure to death, burnout, and negative perceptions of death point to substantial emotional burdens on those working in specialties where death occurs despite the expectation of new life.

At the same time, professional fulfillment and development play important protective roles. They are associated with more positive perceptions of death - even in the face of difficult experiences - suggesting that meaning and growth can counterbalance occupational exhaustion. The observed paradox - where high burnout co-occurs with professional fulfillment - highlights the complexity of this profession, in which deep engagement can be a source of both satisfaction and suffering.

The findings also indicate that participation in emotion regulation training - as present in this project - did not yield significant changes in the levels of burnout, perceptions of death, or sense of fulfillment. This may suggest that short-term or non-specific interventions are insufficient in the face of chronic, deep emotional challenges characteristic of obstetrics and gynecology specialties.

These conclusions emphasize the need for more comprehensive, tailored, and long-term support strategies ones that address both individual psychological needs and systemic determinants. Only such an approach can realistically assist clinicians in facing grief and trauma while sustaining a sense of meaning, satisfaction, and inner balance at work.

**Author Contributions:** Conceptualization, Magdalena Mikulska and Edyta Stefanko-Palka; methodology, Magdalena Mikulska; software, Magdalena Mikulska; validation, Magdalena Mikulska, Aldona Katarzyna Jankowska and Iwona Sadowska-Krawczenko; formal analysis, Magdalena Mikulska; investigation, Magdalena Mikulska and Edyta Stefanko-Palka; resources, Edyta Stefanko-Palka; data curation, Magdalena Mikulska; writing—original draft preparation, Magdalena Mikulska; writing—review and editing, Aldona Katarzyna Jankowska and Iwona Sadowska-Krawczenko; visualization, Magdalena Mikulska; supervision, Aldona Katarzyna Jankowska and Iwona Sadowska-Krawczenko; project administration, Magdalena Mikulska; funding acquisition, Iwona Sadowska-Krawczenko. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Ethics Committee of Collegium Medicum, Nicolaus Copernicus University in Toruń, Bydgoszcz, Poland (protocol code KB 377/2023 and 24.08.2023).

**Informed Consent Statement:** Not applicable.

**Acknowledgments:** We thank all study participants for their valuable contributions. The authors hope that this work will help advance the needed system-level changes discussed in the article—developing forms of support that are adequate and genuinely serve OB/GYN clinicians, which, in turn, will reduce occupational burnout and increase job satisfaction and the quality of care provided to patients.

**Conflicts of Interest:** The authors declare no conflicts of interest.

## References

1. Tanius MA, Haberman R, Bouchard L, Motherwell L, Patel P. Analyses of burn-out among medical professionals and suggested solutions - a narrative review. *J Hosp Manag Health Policy*. 2022;6:25.
2. Al-Hamdan Z, et al. Psychological distress reduction programs among nurses in emergency departments: A systematic review. *J Clin Med*. 2025;14(4):11841337.
3. CDC. Vital signs: Health worker–perceived working conditions and symptoms of poor mental health - Quality of Worklife Survey, United States, 2018–2022. *MMWR Morb Mortal Wkly Rep*. 2022;72(44):1195–1203.
4. Dizon PC, DeFranco EA, DeFranco EA. Stillbirth and perinatal loss: A systematic review and meta-synthesis. *Obstet Gynecol*. 2025;145(4):705 - 715.
5. Dizon PC, et al. Grief and bereavement training in OB/GYN: A review and survey of Canadian residents and programs. *Obstet Gynecol*. 2025;145(6):11931382.
6. Tanius MA, et al. Professional burnout threatens all high-functioning professionals and affects not only the individual, but, by extension, the patients they serve. *J Hosp Manag Health Policy*. 2019;3(1):1-10.
7. Tanius MA, et al. Occupational risks to pregnant obstetrics and gynaecology trainees and physicians: Is it time to think about this? *J Hosp Manag Health Policy*. 2022;6:25.
8. Li H, et al. The effectiveness of mobile interventions in addressing burnout, compassion fatigue, and compassion satisfaction among healthcare professionals: A systematic review and meta-analysis. *J Adv Nurs*. 2025;81(5):12075678.
9. de Andrade Alvarenga CS, et al. Maternal perception of pregnancy loss: A qualitative systematic review. *Br J Midwifery*. 2024;32(3):154 - 162.
10. Mayo Clinic Health System. Pregnancy and infant loss support. 2025. Available online: <https://www.mayoclinichealthsystem.org/locations/la-crosse/services-and-treatments/birthing-centers/other-resources> (accessed on 17 September 2025).
11. Zhang S, Liu Y, Zhang X, Zhang Y. Occupational death trauma and burnout among mental health professionals: The mediating role of secondary traumatic stress. *Front Psychiatry*. 2023;14:12183573.
12. Tanius MA, et al. Burnout in OBGYN students and residents. *J Hosp Manag Health Policy*. 2019;3(1):1 - 10.
13. Lemaire JB, Wallace JE. Interventions to prevent and treat burnout in obstetrics/gynaecology: A scoping review. *J Obstet Gynaecol Can*. 2020;42(12):1561 - 1570.
14. Tan SM, et al. Learning and coping through reflection: Exploring patient death experiences of medical students. *BMC Med Educ*. 2019;19(1):441.
15. Grant E, Johnson M. Factors associated with the psychological well-being of hospice staff: A systematic review and meta-synthesis. *BMJ Support Palliat Care*. 2022;13(e3):e597 - e608.
16. Tanius MA, et al. Hidden in plain sight: A scoping review of professional grief in healthcare and charting a path for change. *J Hosp Manag Health Policy*. 2025;9:25.
17. O'Connor S, O'Connell R. A qualitative exploration of how midwives' and obstetricians' perception of risk affects care practices for low-risk women and normal birth. *BMC Pregnancy Childbirth*. 2018;18(1):1 - 10.
18. Brisson M, Boucher S. Emotion regulation and compassion fatigue in mental health professionals: A longitudinal study in the context of stress. *PLOS Ment Health*. 2025;1(2):e0000187.
19. Sim SY, et al. Experiences of healthcare professionals providing palliative care in home settings: A qualitative systematic review. *Palliat Med Rep*. 2025;6(1):11951797.

20. Okoro O, Oparah C. Nurses' attitude toward caring for dying patients in a Nigerian teaching hospital. *J Nurs Health Stud.* 2025;10(1):1–8.
21. Kang J, et al. Practical preparedness for patient death and psychological distress among family caregivers of terminal cancer patients. *J Clin Nurs.* 2023;32(19 - 20):12026026.
22. National Academies of Sciences, Engineering, and Medicine. *The future of nursing 2020 - 2030: Charting a path to achieve health equity.* Washington (DC): The National Academies Press; 2021.
23. California Wellness Foundation. *Demand for healthcare workers will outpace supply by 2025: An analysis of the US healthcare labor market.* 2019. Available online: <https://www.calwellness.org/> (accessed on 17 September 2025).
24. Back AL, Block SD. Oncology and suffering: Strategies on coping with grief for health care professionals. *ASCO Educ Book.* 2025;45:e482244.
25. Li M, et al. Post-traumatic growth of frontline nurses during the COVID-19 pandemic: A cross-sectional study. *Occup Environ Med.* 2022;79(2):129 - 134.
26. Kim J, Lee Y. Factors influencing post-traumatic growth in nurses who experienced patient death during the COVID-19 pandemic. *J Clin Nurs.* 2024;33(10):11788835.
27. Montero-Marín J, et al. Mindfulness-based interventions for health care professionals: A systematic review and meta-analysis. *Front Psychol.* 2020;11:1683.
28. ClinicalTrials.gov. STEP: Building trauma resilience among nurses and personal support workers during and beyond COVID-19. Identifier: NCT04682561; 2020. Available online: <https://clinicaltrials.gov/ct2/show/NCT04682561> (accessed on 17 September 2025).
29. New Zealand College of Midwives. Resilient midwifery: Trauma-informed and compassionate practice. 2025. Available online: <https://www.midwife.org.nz/midwives/education/continuing-midwifery-education/navigating-unexpected-practice-outcomes-skills-strategies-workshop/> (accessed on 17 September 2025).
30. Karaca A, et al. The effect of educational intervention based on midwifery resilience model on midwives' resilience and stress levels: A randomized controlled trial. *J Clin Nurs.* 2025;34(6):12131545.
31. Health Service Executive. Coping with death and grief as a healthcare worker. 2025. Available online: <https://www2.hse.ie/mental-health/life-situations-events/bereavement/healthcare-worker-grief/> (accessed on 17 September 2025).
32. Al-Hamdan Z, et al. Healing through humanized care: Lessons from a patient-centered perinatal loss protocol. *J Clin Med.* 2025;14(3):11816378.
33. Pires R, et al. Work environment factors in coping with patient death among Spanish nurses. *Rev Lat Am Enfermagem.* 2018;26:e3027.
34. ClinicalTrials.gov. Centering pregnancy for at-risk adolescents. Identifier: NCT02169024; 2014. Available online: <https://clinicaltrials.gov/ct2/show/NCT02169024> (accessed on 17 September 2025).
35. Cacciatore J. Psychological effects of stillbirth. *Semin Fetal Neonatal Med.* 2013;18(2):76 - 82.
36. Lang A, Fleiszer A, Duhamel F. The silent loss of miscarriage: A phenomenological exploration of women's experiences. *Death Stud.* 2011;35(2):167 - 192.
37. Delafontaine AC, et al. Impact of confrontation to patient suffering and death on burnout and psychological distress in hospital staff: A multifaceted analysis. *Psychiatry Investig.* 2024;21(3):224 - 239.
38. Kim J, Park S, Lee H. Impact of occupational death trauma on burnout among mental health professionals: The mediating role of secondary traumatic stress. *Asian J Psychiatry.* 2025;144:103964.
39. Zhang Y, Zhou Y, Wang Y, Wang J. The mediating effects of attitude toward death and meaning of life on the relationship between perception of death and coping competence in nurses. *BMC Nurs.* 2023;22:154.
40. Chen R, Sun C, Chen JJ, et al. A large-scale survey on trauma, burnout, and posttraumatic growth among nurses in the COVID-19 pandemic. *Int J Ment Health Nurs.* 2021;30(1):1 - 15.
41. Litz BT, Stein N, Delaney E, Lebowitz L, Nash WP, Silva C, Maguen S. Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. *Clin Psychol Rev.* 2009;29(8):695 - 706.
42. Shay J. Moral injury. *Psychoanal Psychol.* 2014;31(2):182 - 191.

43. Dean W, Talbot S, Dean A. Reframing clinician distress: Moral injury not burnout. *Fed Pract*. 2019;36(9):400 - 402.
44. Rushton CH. *Moral resilience: Transforming moral suffering in healthcare*. Oxford: Oxford University Press; 2018.

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.