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Stress, anxiety, and depression in second victims: an integrative review

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Abstract

Adverse events in healthcare also affect the personnel involved, who may become "second victims" and develop symptoms such as stress, anxiety, and depression. This study identified and analyzed available evidence on these manifestations by an integrative review of studies published between 2014 and 2024 in databases such as Scopus, PubMed, and SciELO. Quantitative, qualitative, and mixed-method studies were included and evaluated using tools such as STROBE, CASPe, COSMIN, and MMAT. Twenty-one studies were selected, reporting frequent symptoms like emotional overload, insomnia, hypervigilance, withdrawal, guilt, and fatigue. These were associated with organizational factors (lack of support, punitive culture) and personal factors (feelings of guilt). The phenomenon constitutes a complex syndrome affecting mental health and professional performance. Findings support the need for structured institutional responses, including prevention strategies, emotional support, and cultural transformation to reduce its consequences and promote safe work environments.

Keywords: Occupational stress. Anxiety. Depression. Health personnel. Adverse event.

Resumo

Estresse, ansiedade e depressão em segundas vítimas: revisão integrativa

Eventos adversos na área da saúde também afetam os profissionais envolvidos, que podem se tornar "segundas vítimas" e desenvolver sintomas como estresse, ansiedade e depressão. Este estudo identificou e analisou as evidências disponíveis sobre essas manifestações por meio de uma revisão integrativa de estudos publicados entre 2014 e 2024 em bases como Scopus, PubMed e SciELO. Foram incluídos estudos quantitativos, qualitativos e mistos, avaliados com ferramentas como STROBE, CASPe, COSMIN e MMAT. Foram selecionados 21 estudos que relataram sintomas frequentes como sobrecarga emocional, insônia, hipervigilância, retraimento, culpa e fadiga. Esses sintomas foram associados a fatores organizacionais (falta de apoio, cultura punitiva) e pessoais (sentimento de culpa). O fenômeno configura uma síndrome complexa com impactos na saúde mental e no desempenho profissional. Os achados apoiam a necessidade de respostas institucionais estruturadas, com estratégias de prevenção, apoio emocional e transformação cultural para mitigar suas consequências e promover ambientes de trabalho seguros.

Palavras-chave: Estresse ocupacional. Ansiedade. Depressão. Pessoal de saúde. Evento adverso.

Resumen

Estrés, ansiedad, depresión en las segundas víctimas: revisión integrativa

Los eventos adversos en salud afectan también al personal involucrado, quienes pueden convertirse en "segundas víctimas" al desarrollar síntomas como estrés, ansiedad y depresión. Este estudio identificó y analizó la evidencia disponible sobre estas manifestaciones mediante una revisión integrativa de estudios publicados entre 2014 y 2024 en bases como Scopus, PubMed y SciELO. Se incluyeron investigaciones cuantitativas, cualitativas y mixtas, evaluadas con herramientas como STROBE, CASPe, COSMIN y MMAT. Se seleccionaron 21 estudios que reportaron síntomas frecuentes como sobrecarga emocional, insomnio, hipervigilancia, retraimiento, culpa y fatiga. Estos se asociaron con factores organizacionales (falta de apoyo, cultura punitiva) y personales (sentimiento de culpa). El fenómeno configura un síndrome complejo con efectos sobre la salud mental y el desempeño profesional. Los hallazgos respaldan la necesidad de respuestas institucionales estructuradas, con estrategias de prevención, apoyo emocional y transformación cultural para mitigar sus consecuencias y promover entornos laborales seguros.

Palabras clave: Estrés laboral. Ansiedad. Depresión. Personal de salud. Evento adverso.

The authors declare no conflict of interest.

Research

Adverse events in healthcare services represent a significant challenge for institutions. In addition to direct consequences for patients, these events considerably impact healthcare professionals involved, whose mental and physical health may be affected and who may face legal and work consequences, thus becoming what is known as "second victims" [1,2]. The most significant impacts on healthcare professionals after involvement in adverse events are emotional and psychological, with development of stress, anxiety, and depression symptoms, affecting physical and work dimensions.

Recent studies have reported the magnitude of this issue. In Colombia, 44.4% of healthcare personnel reported prior involvement in adverse events, 99% of whom identified themselves as second victims [3]. Similar results were reported in Chile, where 39.2% of healthcare personnel reported prior involvement in adverse events, 73% of whom identified themselves as second victims [4]. These adverse events have profound psychological repercussions, with prevalence rates of up to 24.3% for depression, 25.8% for anxiety, and 29.1% for stress [5,6].

For better understanding on the impacts of adverse events on healthcare personnel, the Second Victim Support Model was proposed in 2009, developed by Susan Scott and collaborators [7]. This model provides a conceptual framework that describes the process by which healthcare professionals are emotionally affected after an adverse event and how organizational support can influence their recovery. The document shows that secondary victims suffer significant emotional trauma that can include post-traumatic stress, guilt, anxiety, and depression symptoms. Furthermore, it notes the importance of implementing psychological and organizational support systems to mitigate these effects and facilitate the recovery of professionals.

The model also emphasizes that, without adequate intervention, these professionals are at risk of suffering prolonged emotional sequelae, affecting not only their personal well-being but also their ability to provide quality healthcare. Therefore, it is fundamental to survey the available literature and review support strategies that have been implemented to reduce the impact of stress, anxiety, and depression on secondary victims.

Beyond its clinical and organizational dimensions, the second victim phenomenon raises ethical implications related to institutional responsibility, organizational justice, and dignity protection for healthcare professionals involved in such events. Accordingly, understanding these manifestations contributes not only toward supporting the mental health of healthcare professionals but also toward fostering ethically responsible healthcare settings.

In this context, this integrative review aims to identify and review the available evidence on stress, anxiety, and depression in secondary victims among healthcare personnel. The review of studies conducted between 2014 and 2024 is aimed at providing further insights into the factors that play a role in these mental health issues and propose effective interventions based on Susan Scott's conceptual model.

Method

This study uses the integrative review methodology [8] with the objective of identifying studies with the strongest evidence on stress, anxiety, and depression in secondary victims in the context of healthcare. This approach enables surveying the current literature to provide an overview and detect gaps in knowledge on the issue.

To this end, the study is based on the following review question: "What are the factors that contribute to stress, anxiety, and depression in secondary victims in the healthcare context, according to evidence available between 2014 and 2024?"

To answer this question, a thorough and systematic search was conducted in five electronic databases: Scopus, PubMed, Web of Science, ScienceDirect, and SciELO. The search covered the period between January 2014 and the first half of 2024. These databases were chosen to ensure broad coverage of studies in health sciences and social sciences applied to health.

This search adopted controlled terms such as MeSH (Medical Subject Headings) terms in PubMed, along with free terms and their linguistic

variants. The adopted keywords and combinations are presented below:

- Stress: "estrés", "stress", "stress disorder", "stress response";
- Anxiety: "ansiedad", "anxiety", "anxiety disorders";
- Depression: "depresión", "depression", "depressive symptoms";

Second victims: "segundas víctimas", "second victims", "second victim phenomenon".

The Boolean operators "AND" and "OR" were used to combine the keywords and optimize the results, as follows: "second victims" AND "stress" OR "anxiety" OR "depression"; "second victims" AND "mental health" AND "healthcare professionals". Furthermore, advanced searches were performed in each database using available filters to refine the results, such as publication date limits, full-text availability, and article type.

The selected studies had to meet the following inclusion criteria:

- Types of studies: we included quantitative, qualitative, clinical trial, and mixed-method studies that specifically addressed mental health impacts (stress, anxiety, and depression) on secondary victims.
- Population: healthcare personnel with prior involvement in adverse events and who identified themselves as second victims;
- Publication period: only studies published between January 2014 and the first half of 2024 were considered;
- Language: studies without language restriction were included to ensure broader coverage of the available literature.
- Full-text availability: only studies with full-text access were included.

The exclusion criteria were studies that did not specifically address stress, anxiety, or depression in secondary victims, that focused on undergraduate students in the health field or on professionals outside the healthcare sector, and that lacked full text available or corresponded only to abstracts without sufficient information for analysis.

The search retrieved 307 potential studies from the selected databases. After an initial review of titles and abstracts, 80 articles were discarded for not meeting the inclusion criteria and 59 articles were discarded due to lack of full-text access. We fully reviewed 55 articles, of which 34 were excluded: 6 for not meeting population criteria, 22 for not being aligned with the review's objective, and 6 for methodological quality. Finally, we included 21 studies that met all inclusion criteria.

To assess the quality of the included studies, four assessment tools were used according to the type of study:

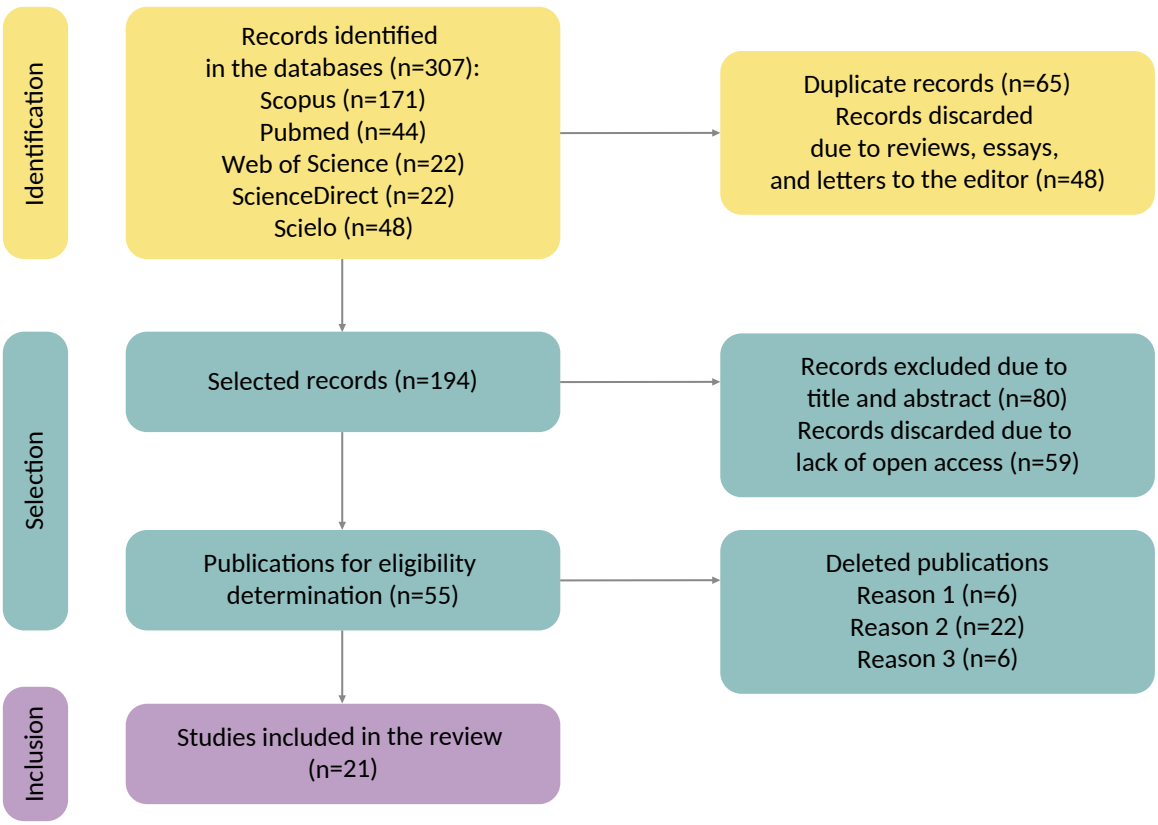
- *Strengthening the Reporting of Observational Studies in Epidemiology* (STROBE): This tool was used for observational studies (cohort and case-control) and enabled the evaluation of key aspects such as design, data collection, and statistical analysis [9];
- *Critical Appraisal Skills Programme Espanhol* (CASPe): Used for both qualitative studies and clinical trials. For qualitative studies, it assessed the methodological adequacy, the analysis and the interpretation of the results. For clinical trials, it enabled the assessment of internal and external validity and risk of bias [10];
- *Consensus-based Standards for the Selection of Health Measurement Instruments* (COSMIN): Used in studies that validated measurement instruments in health, assessing internal consistency, validity, and reliability of the tools [11];
- *Mixed Methods Appraisal Tool* (MMAT), 2018 version: Applied to studies with mixed methods, it enabled quality assessment of both qualitative and quantitative components, ensuring a comprehensive evaluation of both approaches [12].

Each study was independently assessed by two reviewers, and any discrepancies in scoring were resolved through discussion or consultation with a third reviewer. After the assessment, the studies were classified into three quality categories: high quality (met more than 80% of the quality criteria); moderate quality (met between 50% and 80% of the criteria); and low quality (met less than 50% of the criteria).

Low-quality studies were included in the qualitative analysis, but their limitations were noted in the interpretation of the results.

Mendeley software was used for management of references and selected studies. Furthermore, a PRISMA flowchart was prepared to document each step of the study selection process.

Figure 1. Methodological process of identification, review, eligibility, and inclusion



Results

The review included twenty-one studies that addressed the second victim phenomenon in healthcare professionals, focusing on manifestations of stress, anxiety, and depression. The majority of studies were quantitative (n=12), followed by qualitative (n=5), psychometric (n=3), and one mixed-method study. The studies were conducted in several regions, such as America (Brazil [13-16], Argentina [17], and the United States [18-20]); Europe (Spain [21,22], Germany [23], the Netherlands [24,25], and Italy [26]); Asia (China [27], Taiwan [28], Iran [29], and Turkey [30]); Oceania (Australia and New Zealand [31,32]), and Africa (South Africa [33]).

The samples ranged from 6 participants in qualitative studies to 4,369 participants in multicenter quantitative studies. The most used instruments were the SVEST (*Second Victim Experience and Support Tool*) and its adaptations (n=9), followed by anxiety and depression scales such as: Generalized Anxiety Disorder 7-GAD-7 and WITHSTAND-PSY Questionnaire – WS-PSY-Q, structured questionnaires validated by judges, and semi-structured interviews.

The most reported symptoms were stress (due to emotional overload, insomnia, and psychosomatic tension), anxiety (insecurity, fear, and social withdrawal), and depression (guilt, hopelessness, and low self-efficacy). These symptoms were associated with factors such as: severity of the adverse event, clinical specialty, lack of institutional support, and accumulated emotional burden. Several studies observed organizational consequences, such as occupational absenteeism, desire to resign, and deterioration of institutional climate [13-33].

Chart 1 below presents a summary of the studies included in the review on second victims in healthcare professionals. It details the author, country, study type, sample size, instruments used, and main psychological symptoms assessed.

Chart 1. Characteristics and main findings of the studies selected in the review

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
1	Quadros, Magalhães, Wachs, Severo, Tavares, Pai; 2022 [13]	Brazil	Qualitative. 21 healthcare professionals	Entrevistas semiestructuradas y *software* Functional Resonance Analysis Method	Guilt, fear, anguish, helplessness	447 falls identified, 12 with moderate to severe damage. Modeling showed variability in eight functions of the preventive process. The professionals involved reported guilt, fear, anguish, and helplessness, constituting second victims of the adverse event.
2	Quadros, Magalhães, Boufleuer, Tavares, Kuchenbecker, Pai; 2022 [14]	Brazil	Qualitative. 21 healthcare professionals	Entrevistas semiestructuradas	Stress, guilt, anguish	Institutional support for nursing after moderate to severe adverse events was perceived as incipient. Informal peer and family support predominated, which shows the need to formalize structured institutional flows to mitigate emotional repercussions for second victims.
3	Alevi, Draganov, Gonçalves, Zimmermann, Giunt, Mira and collaborators; 2024 [15]	Brazil	Quantitative. 138 nurses	Hospital Survey on Patient Safety	Frustration, insecurity, anguish, and stress	26.8% of newly graduated nurses were involved in adverse events; 94.6% experienced emotional distress, guilt, insecurity, and stress. In total, 44.9% did not know the institutional support protocols and 21.6% received institutional sanctions after the event.
4	Almeida, Moura; 2022 [16]	Brazil	Quantitative. 203 nurses	Hospital Survey on Patient Safety	Anxiety, fear, frustration	In total, 60% of nursing professionals reported involvement in adverse events; 55% presented physical or psychological manifestations, with anxiety being predominant. The effects were greater in events with moderate or severe damage, and were associated with a punitive institutional culture.

continues...

Chart 1. Continuation

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
5	Brunelli, Estrada, Celano, Bandriwskyj, Riquelme, Ortega and collaborators; 2023 [17]	Argentina	Quantitative. 1,134 healthcare professionals	Second Victim Experience and Support Tool -Argentina versión	Guilt, sadness, low self-efficacy	In total, 56% of professionals reported having made a mistake; the psychological impact predominated (average 3.4). Perceived support was greater for family and friends than for the institutional sphere. The greatest impact was associated with a lower perception of support.
6	Burlison, Scott, Browne, Thompson, Hoffman; 2017 [18]	United States	Psychometric. 281 healthcare professionals	Second Victim Experience and Support Tool	Guilt, insomnia, low self-efficacy.	The validation of the SVEST showed adequate internal consistency (α 0.61–0.89) and good factorial fit. The most desired support resource was a respected peer to discuss the event, demonstrating the need for structured institutional support.
7	Chandrabhatla, Asgedom, Gaudiano, Avila, Roach, Venkatesan and collaborators; 2022 [19]	United States	Quantitative. 81 physicians	Second Victim Experience and Support Tool; Abbreviated Maslach Burnout Inventory	Burnout, anxiety, moral injury	In total, 43% presented burnout before and during COVID-19. Second victim experiences were frequent in professionals with burnout and increased in those who did not present it during the pandemic. Moral damage was a predictor of burnout in the context of COVID-19.
8	Allender, Bottema, Bosley, Holst, Clark, Weaver and collaborators; 2023 [20]	United States	Quantitative. 171 respiratory therapists	Second Victim Experience and Support Tool	Anxiety, depression, resilience.	In total, 91% reported traumatic events at work; 39%, anxiety; 32%, insomnia; and 28%, guilt. A total of 15.6% expressed the intention to resign and 17.7% perceived a lack of institutional support. The most desired support was peer mentoring.

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Chart 1. Continuation

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
9	Santana-Domínguez, González-De La Torre, Verdú-Soriano, Berenguer-Pérez, Suárez-Sánchez, Martín-Martínez; 2022 [21]	Spain	Quantitative. 719 healthcare professionals	Second Victim Experience and Support Tool-España version	Stress, guilt, insomnia	The prevalence of second victim feeling was 62.6%. Significant differences were observed between obstetricians and midwives in physical and psychological distress, supervisory support, and intention to changejobs,demonstrating a differentiated emotional and professional impact between the disciplines.
10	Tejedor-Romero, Vinuesa-Sebastián, Aranaz-Andrés; 2022 [22]	Spain	Quantitative. 52 healthcare professionals	Escala de Afrontamiento en Situaciones de Emergencia – covid-19 (EASE covid-19)	Acute stress, anxiety, detachment	In total, 54% of participants had good emotional adjustment; the main fear was infecting family members. A total of 60% modified family routines, evidencing emotional overload in essential workers during COVID-19.
11	Strametz R, Koch P, Vogelgesang A, Burbridge A, Rösner H, Abloescher M and collaborators; 2021 [23]	Germany	Quantitative. 555 physicians	Segundas Víctimas en Países de Habla Alemana –SeViD	Guilt, insomnia, isolation	In total, 59% experienced events as a second victim, and 35% in the last year. A total of 12% reported recovery exceeding one year. For women, the risk and burden of symptoms increased; open dialogue and ethical discussion were valued as priority support.
12	Vanhaecht, Seys, Schouten, Bruyneel, Coeckelberghs, Panella and collaborators; 2019 [24]	Nether-lands	Quantitative. 4,369 (1,619 physicians and 2,750 nurses)	Cuestionario estructurado / validado por jueces	*Flashbacks*, stress, team dysfunction	In total, 85.6% reported involvement in security incidents. Hypervigilance was the most frequent symptom (53%). A higher degree of damage was associated with more prolonged symptoms; incidents with permanent damage increased symptom duration by up to nine times.

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Chart 1. Continuation

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
13	Christoffersen, Teigen, Rønningstad; 2020 [25]	Norway	Qualitative. 33 midwives	Entrevistas semiestructuradas	Anxiety, guilt, abandonment	Proactive and reactive management follow-up practices were identified after adverse events. Transformational leadership and planned support facilitated recovery and learning; lack of follow-up led to abandonment, emotional deterioration, and difficulty continuing professional practice.
14	Busch, Mazzi, Berti, Wu, Cosci, Marinelli and collaborators; 2023 [26]	Italy	Psychometric. 284 healthcare professionals	WITHSTAND-PSY Questionnaire; WITHSTAND-PSY Screening Instrument	Anxiety, depression, coping	The WITHSTAND-PSY questionnaire showed adequate clinimetric properties for assessment of anxiety and depression in second victims. Significant emotional impact was confirmed after adverse events, as well as clinical utility in detecting distress and preventing prolonged burnout.
15	Tang, Xie, Yan, Teng, Yu, Wei and collaborators; 2024 [27]	China	Mixed. 406 nurses. 8 nurses for in-depth interviews	Second Victim Experience and Support Tool –SVEST; Cuestionario de Quejas Somáticas sobre el Estado de Subsalud (SCSSQ) y el Trastorno de Ansiedad Generalizada (GAD-7). Entrevistas a profundidad	Anxiety, professional doubts, insomnia	In total, 76.9% reported safety events; the dimensions with the highest scores were professional and psychological distress. The SVEST was positively correlated with somatic symptoms (r=0.444) and anxiety (r=0.490), demonstrating a significant physical and mental impact.
16	Tan, Chen; 2019 [28]	Taiwan	Quantitative. 1206 physicians	Short Form Health Survey (36-Item)	Stress, depression, exhaustion	In total, 25.2% reported disputes due to incompetence. After the adjustment, lower scores in general health, mental health, and vitality were observed in the physicians involved, demonstrating a prolonged negative impact of the adverse event on quality of life.

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Chart 1. Continuation

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
17	Sharif-Nia, Hanifi; 2023 [29]	Iran	Psychometric. 754 nurses	Second Victim Experience and Support Tool	Anguish, fear, remorse	The Persian version of the SVEST showed four factors that explained 51.67% of the total variance. Confirmatory analysis showed good fit and reliability (>0.7), validating the measurement of distress and perceived support in second victims.
18	Ayvat; 2023 [30]	Turkey	Qualitative. 6 healthcare professionals	Grupos focales	Burnout, anger, personal devaluation	Five themes were identified: frequency of the phenomenon, medical, technical, and violent causes, emotions (impotence, injustice, anger), coping strategies, and demands for psychological, legal, and organizational support, showing a significant emotional impact on healthcare professionals.
19	Collings, Potter, Gebski, Janda, Obermair; 2025 [31]	Australia and New Zealand	Quantitative. 727 obstetricians/ gynecologists	Cuestionario estructurado / validado por jueces	Anxiety, guilt, withdrawal	In total, 90% reported increased stress in the face of severe adverse outcomes; and 89% reported sleep disorders. The effects on mental and physical health and on relationships were evident. Women and young surgeons presented a greater emotional impact after surgical complications.
20	Buhlmann, Ewens, Rashidi; 2022 [32]	Australia	Qualitative. 10 healthcare professionals	Entrevistas	Stress, isolation, burnout	Five themes emerged: intense initial emotional reaction, prolonged sequelae, repercussions at work, need for organizational support, and adaptive strategies for "carrying on." The lack of institutional support hindered professional recovery after critical incidents.

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Chart 1. Continuation

No.	Author; year	Country	Study type/ sample size	Instruments	Symptoms evaluated	Main findings
21	Mathebula, Filmalter, Jordaan, Heyns; 2022 [33]	South Africa	Quantitative. 181 professionals	Second Victim Experience and Support Tool	Stress, insomnia, low efficacy	Predominance of greater psychological distress (average 2.97) over physical distress (2.52). Professional self-efficacy was affected (2.71). The support was mainly non-work-related (4.08), with limited perception of institutional support (2.94).

Discussion

The integrative review conducted demonstrates that the second victim phenomenon is a global and persistent situation, characterized by a high prevalence of psychological symptoms such as stress, anxiety, and depression. These findings confirm that the experience of involvement in an adverse event has significant impacts not only on the emotional well-being of healthcare professionals [34], but also on their performance and patient safety [35], constituting an individual, organizational, and ethical issue.

From a bioethical perspective, the second victim phenomenon transcends the individual and psychological scope by constituting an expression of moral vulnerability generated in complex organizational contexts. Exposure to adverse events produces not only potential clinical harm to patients but also emotional and moral harm to healthcare professionals [36], questioning fundamental bioethical principles such as non-maleficence, organizational justice, institutional responsibility, and the ethics of care [37,38]. The lack of support systems, the punitive culture, and the absence of structured organizational responses represent forms of non-maleficence by omission, which increase the distress of professionals and compromise both their well-being and patient safety [39]. Thus, second victims should be understood as subjects that are ethically vulnerable in healthcare systems, whose protection is not merely a matter of workplace well-being, but a bioethical imperative.

Stress: nature, associated factors, and impact on work

Stress in healthcare professionals who have experienced adverse events represents a significant psychophysiological response that can become chronic and debilitating if not properly treated. The literature describes stress not only as an immediate emotional reaction, but as a persistent occupational risk factor that affects professional judgment, performance, and the overall well-being of healthcare professionals [40]. During the COVID-19 pandemic, occupational stress was intensified due to the increased care burden, uncertainty, and constant exposure to suffering and death, creating settings that were hostile for professional practice [41,42].

It has been documented that factors such as lack of institutional support, fear of sanctions or re-victimization, and the perception of professional incapacity increase the intensity of stress, especially in contexts where a culture of punishment prevails over a culture of learning and support [36,43].

Studies number 2, 6, and 12 of this review (Chart 1) document that factors such as lack of institutional support, fear of sanctions, revictimization after an adverse event, and the perception of professional incapacity significantly increase the intensity of stress, especially in contexts where a punitive culture prevails over a culture oriented towards learning and follow-up. These organizational conditions not only perpetuate emotional distress but also limit the coping and recovery processes of affected professionals.

Furthermore, stress manifests not only through emotional symptoms but also through physical responses, such as fatigue, sleep disorders, and headaches, directly affecting professional competencies and interpersonal relationships with patients, family members, and the work team [39]. Evidence indicates that stress is not exclusive to a profession or hierarchical level, but rather permeates all healthcare personnel and is more severe in those working in critical and highly complex services [36,43]. These manifestations are also associated with relevant organizational consequences, such as occupational absenteeism, the desire to resign, and the deterioration of the institutional climate.

These findings demonstrate that stress in second victims does not respond solely to individual clinical or emotional demands, but is profoundly conditioned by the responses, or lack thereof, from the organizational environment in the face of adverse events.

Furthermore, the stress experienced by second victims cannot be understood solely as an individual reaction to error, but rather as a manifestation of an organizational environment that does not ensure ethical conditions of care, support, and learning [44]. The persistence of stress in punitive contexts shows a structural failure in institutional responsibility towards caregivers, reproducing scenarios of avoidable harm and violating principles such as non-maleficence and organizational justice [43].

In this sense, the implementation of prevention strategies, care protocols for assisting second victims, and institutional support programs is not just an occupational health measure, but an ethical obligation aimed at protecting professionals and promoting safe healthcare settings.

Anxiety: manifestations, long-term risks, and institutional associations

Anxiety is one of the most prevalent and persistent responses in healthcare professionals who experience adverse events, being characterized by physiological hyperactivity, anticipatory worry, insomnia, and somatic symptoms such as palpitations and respiratory discomfort [45-47]. Recent studies show that more than 20% of hospital staff present clinical anxiety, with significant associations between this symptomatology and allostatic overload, insomnia, and episodic memory impairment [47]. These findings reinforce the hypothesis that anxiety responds not only to acute workplace factors but also to cumulative chronic stress that compromises neurocognitive mechanisms for emotional regulation.

In the case of healthcare personnel, it was found that anxiety coexists with emotional exhaustion and stress symptoms, being part of an interconnected symptomatic network in which anxiety plays a central role and amplifies other forms of psychological distress [48]. Furthermore, it has been described that this symptomatology can persist over time, especially in institutional contexts where the culture is punitive or where there are no clear mechanisms to support professionals after an adverse event [34,41].

Worryingly, anxiety has been associated with an increased risk of committing new clinical errors, thus perpetuating a negative feedback loop that impacts both worker health and patient safety [36,49].

In bioethical terms, anxiety in second victims can be understood as an expression of moral vulnerability resulting from institutional contexts that do not ensure conditions of justice, care, and support after an adverse event. The absence of empathetic and non-punitive organizational responses exposes professionals to avoidable distress, violating principles such as non-maleficence and organizational justice [50]. In this regard, addressing anxiety requires not only individual interventions but also institutional ethical responsibility geared toward protecting professionals and promoting safe healthcare settings.

Depression: personal and professional consequences, triggering factors

Depression is one of the most disabling psychological effects in healthcare professionals who were second victims after an adverse event. It manifests through persistent sadness, hopelessness, loss of interest, chronic fatigue, decreased self-efficacy, and, in some cases, suicidal ideation [49,51].

A recent study on medical and nursing professionals found that factors such as high workload, lack of institutional support, and the severity of the adverse event are significantly associated with depressive symptoms, with rates exceeding 30% in certain hospital settings [52]. Studies number 2, 9, and 12 included in this review (Chart 1) demonstrate that its intensity is related to the severity of the event, to the subjective perception of guilt, and to the lack of subsequent support from the institution.

Unlike other symptoms, depression seems to evolve in a more prolonged manner, with residual effects that can persist for months or even years after the event, especially if timely psychosocial interventions are not available [47]. This shows the importance of healthcare centers implementing early detection protocols and specialized psychological follow-up to reduce the depressive burden on healthcare providers and promote their emotional recovery.

In bioethical analysis, depression can be interpreted as the deepest expression of an unaddressed moral injury, compromising the professional integrity and dignity of caregivers [53]. The lack of structured support and institutional practices focused on learning and organizational justice exposes professionals to avoidable distress [54], violating the principle of non-maleficence and institutional ethical responsibility. In this sense, the implementation of early detection protocols and specialized follow-up represents not only a mental health intervention but an ethical obligation to protect professionals and foster patient safety.

The results of this study allow us to state that the second victim phenomenon among healthcare professionals manifests as a multifactorial syndrome with predominant clinical expression in stress, anxiety, and depression symptoms, which interact with one another and share common triggering factors.

The review demonstrated that accumulated emotional burden, the perception of guilt, lack of institutional support, and a punitive culture are interrelated factors that amplify psychological distress. Although each symptom presents different clinical characteristics, there is a notable co-occurrence that hinders a fragmented approach to them; therefore, the proposal is to conceptualize this phenomenon as a continuum of emotional exhaustion that evolves according to event severity, environmental response, and individual coping resources.

The studies included in the review show that this symptomatology compromises not only worker health but also healthcare quality, with organizational effects such as absenteeism, deterioration of the work environment, and an increased risk of subsequent adverse events. In conjunction, the findings reinforce the need for comprehensive interventions that consider both individual and contextual factors and are based on theoretical models such as that of Susan Scott to promote emotional recovery and institutional resilience.

This review has some relevant limitations. Methodological heterogeneity among included studies, with quantitative, qualitative, and mixed approaches, hindered direct comparison between findings. Furthermore, several studies used self-administered instruments, which may have led to response biases. A limited representation of the technical or technological profile and of regions outside of Europe and America was also identified. Finally, although quality assessment tools were applied, studies of moderate quality were included, which could affect the robustness of some conclusions. However, the findings provide a comprehensive and up-to-date overview of the emotional impact of adverse events on second victims in the healthcare sector.

Final considerations

This integrative review demonstrates that the second victim phenomenon in the healthcare field represents a frequent, multifactorial issue with a high emotional impact on healthcare professionals involved. Stress, anxiety, and depression symptoms emerge as predominant responses, influenced by individual, organizational, and contextual factors. These symptoms not only affect the well-being of healthcare personnel, but also compromise the quality of healthcare, increasing the risk of clinical errors and organizational deterioration.

From an ethical perspective, the findings reinforce the institutional responsibility to ensure safe, non-punitive, and learning-oriented environments that acknowledge the vulnerability of professionals after an adverse event. The implementation of comprehensive prevention, detection, and follow-up strategies is not just an occupational health intervention, but an ethical obligation geared toward protecting professional dignity and fostering patient safety. This review also emphasizes the urgent need to transform organizational cultures into safer, more supportive, and more resilient environments that protect not only patients but also professionals providing care.

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Erika Bibiana Rodríguez Gallo: study conception; literature review; writing of the introduction, results, discussion, and conclusions. Silvio Germán Telpiz de la Cruz: definition of the methodological approach; analysis of results; preparation and writing of the discussion.

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