BMJ Open

Identifying key competencies for supporting second victims in different contexts: a scoping review

Alicia Sánchez-García ,[1] Clara Pérez-Esteve ,[2] Andrea Conti,[3] Eva Potura ,[4,5] Reinhard Strametz ,[6] Massimiliano Panella,[3,7] Deborah Seys ,[8] Kris Vanhaecht,[8] Paulo Sousa ,[9] José Joaquín Mira [1,2]

To cite: Sánchez-García A, Pérez-Esteve C, Conti A, *et al*. Identifying key competencies for supporting second victims in different contexts: a scoping review. *BMJ Open* 2025;**15**:e094959. doi:10.1136/bmjopen-2024-094959

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (https://doi.org/10.1136/bmjopen-2024-094959).

AS-G and CP-E contributed equally.
PS and JJM contributed equally.

AS-G and CP-E are joint first authors.
PS and JJM are joint senior authors.

Received 11 October 2024
Accepted 02 May 2025

For numbered affiliations see end of article.

Correspondence to
Clara Pérez-Esteve;
clara.pereze@umh.es

ABSTRACT

Background Providing support to second victims in workplaces is crucial for maintaining high-quality performance. Peer support approach has proven to be one of the most effective and well-accepted approaches. However, the specific competencies required for peer supporters remain unclear. This review aims to address this gap by identifying and categorising these competencies.

Objective This scoping review examines the competencies (skills, attitudes and knowledge) needed to support workers where the pressure of their roles may lead to errors that could cause harm to others. In such situations, these individuals may experience intense feelings of responsibility, potentially impacting their ability to perform their duties. In the healthcare sector, these workers are commonly referred to as 'second victims'.

Eligibility criteria This review includes studies that define the competencies necessary for peer supporters assisting second victims in any industry. It covers all professional roles susceptible to human errors affecting people's well-being. The focus is on peer support and psychological first aid, encompassing relevant competencies, attitudes and knowledge for addressing safety-related incidents and workplace errors.

Sources of evidence The scoping review was conducted following Arksey and O'Malley's framework and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews guidelines. Studies were identified through a comprehensive search of databases, including Embase, ProQuest, PsycINFO, PubMed, Scopus and Web of Science. References from eligible studies were also considered.

Charting methods Data were extracted and categorised into competency domains through a standardised process. Two reviewers independently performed data extraction, with discrepancies resolved by consensus.

Results A total of 34 studies were included in the review. Across five identified domains, 91 specific and 30 general competencies were categorised. Additionally, the review identified 29 types of peer-based interventions designed to support professionals following incidents or stressful situations.

Conclusions The findings underscore the need for well-defined competencies for peer supporters of second victims, emphasising training in communication, emotional support and role-specific knowledge. Tailoring peer support programmes to the professional context and industry-specific characteristics is essential for providing effective assistance.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ The study's extensive search methodology captures a broad range of competencies for peer supporters across various industries, enhancing the generalisability of the findings.
⇒ This study identifies the key competencies required for peer supporters to assist second victims across various industries, providing valuable insights for the development of structured, industry-specific peer support training programmes.
⇒ The lack of a common term for 'second victims' across industries may have limited the ability to identify all relevant studies, potentially affecting the comprehensiveness of the findings.
⇒ This research does not evaluate the practical effectiveness of peer support programmes based on the identified competencies, limiting the ability to assess the practical outcomes of their implementation.

INTRODUCTION

The need to support individuals affected by errors or near misses with consequences for third parties has gained increasing recognition and importance in contemporary society.[1–3] Individuals feeling responsible for having caused or being about to cause significant harm to others (eg, following a medical error, an inappropriate manoeuvre, insufficient maintenance) are commonly referred to as 'second victims' (SV).[4] While an SV is defined as 'any healthcare worker, directly or indirectly involved in an unanticipated adverse patient event, unintentional healthcare error, or patient injury, who becomes victimised in the sense that they are also negatively impacted',[4] this phenomenon is not limited to healthcare professionals. Emergency responders, pilots, train drivers and individuals in various high-pressure

professions frequently encounter situations where errors occur, leading to emotional distress and trauma. These incidents not only impact the individuals directly involved but also have broader implications for safety and organisational culture, professional well-being and performance.[5–7]

The recognition of SVs and the psychological and emotional toll they experience has primarily taken place in the healthcare sector.[8–10] However, similar issues have been explored in other professional sectors as well.[11] While the term SV may not be as widely recognised outside the healthcare domain, analogous scenarios are prevalent in various industries, necessitating the development of comparable support frameworks.[12]

This recognition highlighted the need for effective support mechanisms and interventions to aid SVs.[3 13–15] Failure to adequately support SVs can lead to long-term psychological consequences, decreased job satisfaction, increased turnover rates and compromised patient care quality.[13 16 17]

Efforts to mitigate the impact suffered by SVs have led to the development of peer support programmes, psychological first aid initiatives and other interventions aimed at providing timely and comprehensive support to affected individuals.[3 18] While there is a growing recognition that greater and more comprehensive support, as well as a shift towards a just culture, are still needed,[19–21] there is a clear preference among the workforce for peer support as a primary form of assistance in the aftermath of safety and stressful incidents.[22–24]

Nevertheless, the effectiveness of these programmes relies heavily on the competencies, attitudes, and knowledge of those providing support.[15 25 26] Identifying and understanding the specific competencies required for effectively supporting SVs (workers tackling with highly stressful events) is crucial for designing and implementing targeted training programmes, policies and support systems.

Against this backdrop, conducting a scoping review to comprehensively explore and map the competencies needed for supporting SVs across diverse contexts is essential. By synthesising existing evidence and identifying gaps in knowledge, this review can inform the development of evidence-based practices and interventions aimed at better supporting individuals affected by safety incidents, ultimately contributing to enhanced safety environment, organisational resilience and professional well-being.

Therefore, this scoping review aims to map and frame the core competencies (skills, attitudes and knowledge) necessary for peer supporters to effectively assist SVs. This includes the identification and analysis of existing peer support intervention programmes and the specific competencies highlighted in the literature, across various industrial contexts. Through this analysis, the review intends to fill the identified gap in the existing literature, providing a comprehensive evidence base to inform and guide the future development of peer support programmes and give insights for general or cross-cutting contents to be included in training programmes of the professionals who implement them.

METHODS

Our protocol was based on the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).[27] The final protocol was registered prospectively on Open Science Framework on 27 November 2023 (https://doi.org/10.17605/OSF.IO/7FVEC).

The methodology of this scoping review adhered to the established Arksey and O'Malley[28] methodological framework, as enhanced by Levac *et al* and the Joanna Briggs Institute (JBI)[29] recommendations. Throughout the study, we followed five stages: (1) identifying relevant publications; (2) selecting the literature; (3) charting the literature; (4) synthesising and summarising the findings; and (5) reporting the results.

Definitions

This study was based on the definition of SV developed in the healthcare sector (4). By extension, this conceptual framework was applied to other high-risk professions, defining an equivalent concept as a highly stressed worker facing a situation that exceeds their resilience and coping abilities.

Professions such as emergency responders, pilots and train drivers frequently encounter high-pressure situations where errors can have serious consequences, leading to emotional distress and trauma. While healthcare professionals typically face unanticipated adverse patient events, unintentional healthcare errors or patient injuries, operators of hazardous machinery, pilots and train drivers encounter unanticipated operational incidents, critical system failures, unintended safety breaches or high-risk operational errors. These events may arise from unexpected technical malfunctions, unintended procedural deviations or adverse operational events, requiring professionals to respond swiftly to unforeseen human or mechanical errors, safety-critical incidents or high-stakes decision errors. Despite the differences in context, the psychological and emotional impact of such events often follows similar patterns across high-risk professions.

Identifying relevant publications

First, we conducted a preliminary search to identify existing systematic or scoping reviews and to refine our inclusion and exclusion criteria and keywords. Databases searched included PubMed/MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis. Next, we redefined the inclusion and exclusion criteria using the population, context, concept (PCC) framework.[30] Finally, we conducted a comprehensive search in February 2024, covering the following databases: PubMed/MEDLINE, ProQuest, Scopus, Web of Science, PsycINFO and EMBASE. Of these, PubMed/MEDLINE,

Table 1 Search strategy for the databases

Search strategy		Results
Search on MEDLINE/PubMed Filter: no filter Date of search: 8 February 2024	(("Second victim"[All Fields] OR "adverse event"[All Fields] OR "workplace incident"[All Fields] OR "human error"[All Fields] OR "Medication Errors"[Mesh] OR "just culture"[All Fields] OR "Safety Management"[Mesh] OR "trauma"[All Fields] OR "peer leader"[All Fields] OR "support worker"[All Fields)) AND ("Competence"[All Fields] OR "Professional Competence"[Mesh] OR "skill"[All Fields] OR "Aptitude"[Mesh] OR "Knowledge"[Mesh] OR "Attitude"[Mesh])) AND ("Peer support"[All Fields] OR "Psychological First Aid"[Mesh] OR "peer support training"[All Fields])	60
Search on ProQuest Filter: NOFT (any field except full text) Date of search: 8 February 2024	("peer support" OR "psychological first aid") AND (competence OR skill OR aptitude OR knowledge OR attitude) AND ("second victim" OR "Adverse event" OR "workplace incident" OR "human error" OR "medication	271
Search on PsycINFO Filter: no filter Date of search: 8 February 2024	("peer support" OR "psychological first aid" OR "peer support training) AND (competence OR skill OR aptitude OR knowledge OR attitude) AND ("second victim" OR "Adverse event" OR "workplace incident" OR "human error" OR "medication errors" OR "just culture" OR "safety management" OR "trauma" OR "peer leader" OR "support worker")	222
Search on Scopus Filter: abstract/title/keywords Date of search: 8 February 2024	TITLE-ABS-KEY (("peer support" OR "psychological first aid" OR "peer support training") AND (competence OR skill OR aptitude OR knowledge OR attitude) AND ("second victim" OR "Adverse event" OR "workplace incident" OR "human error" OR "medication errors" OR "just culture" OR "safety management" OR "trauma" OR "peer leader" OR "support worker"))	322
Search on EMBASE Filter: "Map to preferred term in Emtree" Date of search: 8 February 2024	('peer support'/de OR 'psychological first aid'/de OR 'peer support training') AND ('competence'/de OR 'skill'/de OR 'aptitude'/de OR 'knowledge'/de OR 'attitude'/de) AND ('second victim'/de OR 'adverse event'/de OR 'workplace incident' OR 'human error'/de OR 'medication errors'/de OR 'just culture' OR 'safety management'/de OR 'trauma'/de OR 'peer leader' OR 'support worker')	55
Search on Web of Science Filter: no filter Date of search: 8 February 2024	("peer support" OR "psychological first aid" OR "peer support training") AND (competence OR skill OR aptitude OR knowledge OR attitude) AND ("second victim" OR "Adverse event" OR "workplace incident" OR "human error" OR "medication errors" OR "just culture" OR "safety management" OR "trauma" OR "peer leader" OR "support worker")	307
	Total	**1237**

Controlled vocabulary terms (MeSH for PubMed, Emtree for EMBASE) are indicated in the search strings using standard notation ([MeSH], /de). All other terms were used as free text.

Cochrane and JBI Evidence Synthesis are health-specific, while ProQuest, Scopus, Web of Science, PsycINFO and EMBASE are generalist databases that include research from multiple disciplines, such as social sciences, technical fields and industrial sectors. This diversity of databases, combined with the use of field-specific terminology, allowed for the exploration of studies across multiple disciplines, including technical, social and healthcare fields. This approach facilitated the identification of relevant studies to effectively address the research question of this study. The search strategy used is found in table 1.

The structured search was carried out by two researchers (CP-E and AS-G) in parallel, who then met to share their results and reach a consensus on the terms to include in the search strategy. The search strategies were refined through team discussions and exported into EndNote, where duplicates were removed. In some databases (ProQuest, Scopus, EMBASE), we used specific filters to improve the search specificity (table 1).

We also reviewed articles from the bibliographies of eligible studies and institutional websites, including those of the European Researchers' Network Working on Second Victims (ERNST), AHRQ, WHO, Segundas y Terceras Víctimas Proyecto de Investigación (Research Project on Second and Third Victims), SARS-CoV-2 (COVID-19) Second Victims, Centre for Patient Safety, Second Victim Support (UK) website, KU Leuven Research–Second Victim in Healthcare, ForYOU team website, AHRQ website, AHRQ PSNet and WHO website.

Two of the included databases (ie, ProQuest and Scopus) already included grey literature. For this reason, no additional search for this type of reports was conducted.

Selecting the literature

Inclusion criteria

In this scoping review, we focused on selecting sources that list competencies (skills, attitudes or desirable knowledge) for peer supporters who aid colleagues in highly stressful situations within workplace environments. To be included in this scoping review, studies had to meet the following eligibility criteria according to the PCC framework:[29]

- *Population*: The population of interest includes peer supporters operating within workplace environments. These individuals are employees or members of an organisation who provide support to their colleagues, particularly in settings that frequently involve high stress.
- *Concept*: The core concept being investigated pertains to the competencies and aptitudes necessary for effective peer support. This includes understanding the specific attributes that enable peer supporters to assist their colleagues effectively. Competencies may encompass communication skills, empathy, crisis intervention techniques and the ability to foster trust and resilience among peers.
- *Context*: The context focuses on workplace settings where employees face highly stressful events. This includes but is not limited to environments such as healthcare facilities, emergency services, military organisations and other workplaces. The context aims to explore how peer support functions in these settings following events that significantly impact mental and emotional well-being, such as traumatic incidents, critical incidents or organisational crises. It is important to note that no specific industrial contexts were targeted during the literature search. All potential workplace environments were considered eligible, provided they involved scenarios where employees might face high-stress events as well as safety incidents. This inclusive approach was adopted to capture a comprehensive understanding of the competencies required for peer support across a diverse range of professional settings.

Additionally, the following inclusion criteria were considered:

- *Type of study*: Include primary studies (qualitative, quantitative), literature reviews, conference reports and reports from reliable organisations that examine the competencies (skills, attitudes, and knowledge) of peer supporters.
- *Language*: Studies published in English or any language, provided that an adequate translation is possible for analysis, including translations facilitated by AI tools (ChatGPT by OpenAI and DeepL Translator).
- *Publication period*: No restrictions were applied regarding the publication period of the studies.

Exclusion criteria

Papers were excluded if they did not fit into the conceptual framework of the study, for example, papers focused on peer support in non-workplace settings or lacked specific information on the competencies (skills, attitudes or desirable knowledge) necessary for effective peer support in high-stress workplace environments. We also excluded studies where peer-based support is given to victims of incidents or highly stressful situations who are not professionals working in that environment. We also excluded some types of publications: books and book chapters, thesis/dissertations, editorials, letters to the editor, case series, case reports and commentaries.

Charting the literature

The selection process consisted of three stages carried out in parallel by two reviewers (CP-E and AS-G):

1. Pilot screening: Two reviewers examined 30 publications in parallel to refine the data selection and extraction manual. Disagreements were resolved by consensus.
2. Screening stage: Titles and abstracts of all articles identified through the search strategy were screened to eliminate those that did not meet the inclusion criteria. Articles that appeared to include relevant information for our study were selected for full-text review.
3. Eligibility assessment: In this stage, the full texts of potentially eligible articles were reviewed to identify competencies for peer supporters operating in highly stressful workplace environments. Only articles meeting these criteria were included in the final analysis.

A consensus was reached to resolve conflicts found between the reviewers. This phase was carried out using Rayyan software, a tool used to collect and examine bibliographic references.

Synthesising and summarising the findings

The entire data extraction process was again performed by two reviewers in parallel (CP-E and AS-G), who carried out standardised steps to analyse and synthesise the data from the selected sample of articles. Any discrepancies were then analysed and resolved through consensus meetings to ensure reliability.

Reviewers extracted data encompassing various details, including authors, publication year, country, document type (eg, original research article, review), study classification (experimental, observational, etc), stated study objectives, industry context (eg, healthcare, public safety, etc), participants (professional profile, age, or other relevant characteristics, along with sample size) and identified competencies (skills, attitudes or knowledge). Moreover, we captured information regarding the specific programme or intervention under study (eg, RISE, FOR YOU) and the study outcomes, with a specific focus on results related to the assessment of supporter competencies (data extraction template can be consulted in online supplemental file 1).

Study impact

As a measure of the impact of each publication included in this study, we considered both the Journal Impact Factor (JIF) and JIF Rank of the journal in which the study was published, as well as the number of citations

received. Thus, the data in online supplemental file 2 provides insight into the study's significance within its relevant scientific domain.

Reporting the results

Once we selected the resources, we extracted and listed the competencies from each resource. Then, we categorised them, grouping them by domains or types of competencies, and counted the frequency of each one. In order to ensure clarity in the categorisation of competencies, we followed a systematic approach that involved an iterative review process among multiple researchers (JJM, CP-E and AS-G). Each competency was assessed in the context of its primary function, with particular attention given to domains that appeared to overlap. When competencies showed clear links to two or more categories, a decision was made based on their core focus. This iterative process aimed to minimise ambiguity and ensure that no competency was misplaced. The final categorisation, including domain definitions, is presented in online supplemental file 3. Additionally, we compared these competencies across the professional sector.

RESULTS

Studies included

A total of 1237 studies were initially identified through the database searches. Following full-text screening, 20 studies were ultimately included. In addition, a citation review identified 55 further studies for evaluation, of which 14 were finally included. In total, 34 articles were included in our review. A PRISMA-ScR flow diagram visually summarises the study selection process (figure 1).

The included articles were published from 2005 to 2024, with most conducted in the USA (n=18, 52.9%).[31–48] The rest of the studies were conducted in the UK (n=4, 11.8%),[49–52] Canada (n=4, 11.8%),[53–56] Australia (n=3, 8.8%),[57–59] Germany (n=3, 8.8%),[60–62] and one each from New Zealand[63] and Slovenia (n=1, 2.9%).[64] Most of the articles adopted an observational study design, frequently using questionnaires, observations or interviews (n=27, 79.4%). There were also experimental studies (n=3, 8.8%), quasi-experimental studies (n=3, 8.8%) and a narrative review (n=1, 2.9%). The studies covered a range of industrial sectors, with the majority focusing on healthcare (n=20, 58.8%), followed by public safety personnel, including police, firefighters, emergency personnel and similar roles (n=8, 23.5%); the military sector, including active professionals and veterans (n=5, 14.7%); and postal services (n=1, 2.9%). A summary of the included articles is provided in online supplemental file 4.

Existing peer support intervention programmes identified

A total of 29 peer support programmes were found, including seven unspecified or ad hoc interventions, as

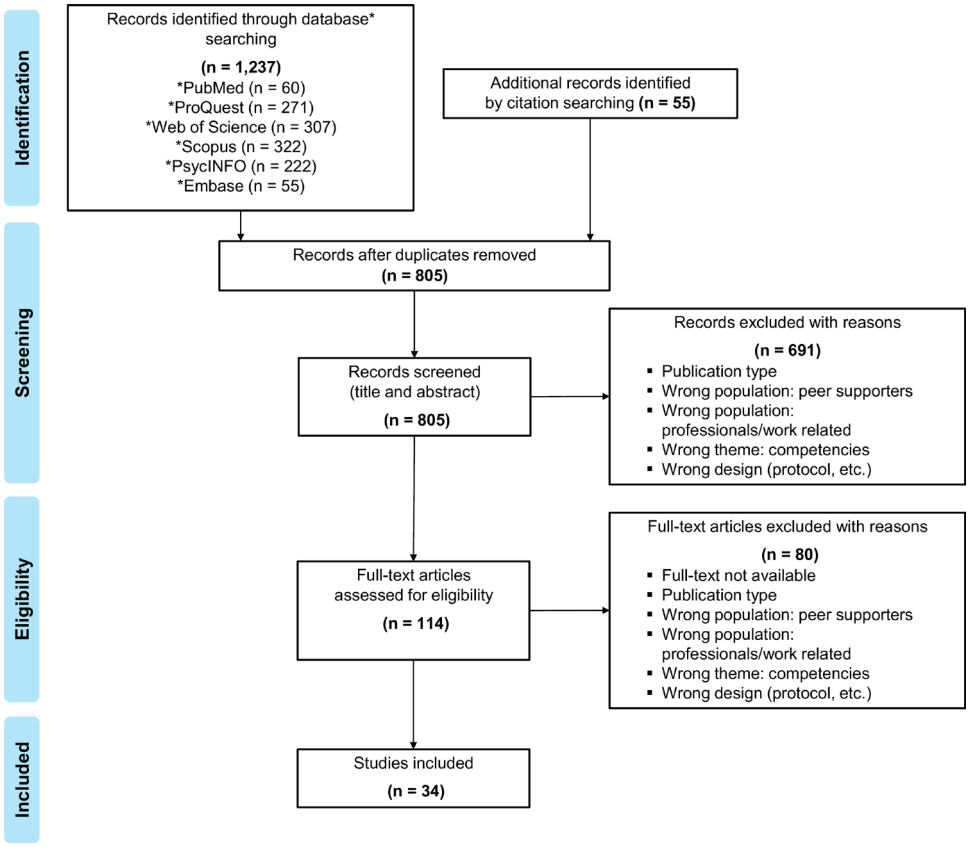

Figure 1 Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews flow diagram summarising the study selection process, illustrating the inclusion and exclusion of studies throughout the scoping review.

detailed in online supplemental file 5. Many programmes aimed at providing support to professionals facing stressful and traumatic situations. Additionally, there were specific programmes designed for adverse events in healthcare and post-traumatic stress disorder in veterans, and initiatives focused on increasing resilience and well-being among professionals at high risk of exposure to potentially traumatic events (online supplemental file 5). Only 13 studies (38.2%) mentioned the term SV, all of which were in the healthcare context. None of the studies from other industries used this term, and seven studies based on the healthcare industry did not explicitly mention it.

Core competencies (skills, attitudes and knowledge) identified

A total of 302 peer supporter competencies were identified. Through the categorisation process, these competencies were grouped into 30 general, broader competencies, such as communication skills. The general competencies identified were included in five domains: communication and interpersonal competencies (competencies related to the skills for effectively interacting with peers while providing support), emotional support and intervention competencies (competencies related to providing emotional support and first aid to deal with negative emotions), ethical standards and legal support competencies (necessary ethical standards for the role and knowledge to offer legal support), organisation and role related competencies (competencies related to the role as a peer supporter and understanding of the organisation) and self-care and motivation competencies (competencies related to the ability to care for oneself and to provide care and encouragement to others). These domains were defined by the researchers based on an iterative analysis of the extracted competencies, grouping those that shared characteristics or referred to similar themes. These broader competencies are summarised in table 2. A detailed description of each domain and their corresponding competencies is provided in online supplemental file 3.

Ninety-one unique, specific competencies were found once similar, and overlapping competencies were combined. Online supplemental file 6 provides a detailed overview of the general competencies, their specific subcategories and details regarding their frequency across articles and sectors.

The reviewed articles also revealed a series of requirements for peer supporters that could not be considered competencies. Among these, 24/7 availability to respond to colleagues' needs was found to be particularly relevant for those assuming the role of peer supporter,[36 47 48 52 63] indicating the high level of commitment required. The aspect of being a volunteer was also predominant.[47 49 51] Other requirements included not suffering from mental health issues,[49 51] having experienced a similar trauma,[39] being at least 30 years old,[64] or having a minimum of 5 years of work experience.[64]

Table 2 General competencies for peer supporters by thematic domain

Thematic domain	General competencies for peer supporters
Communication and interpersonal competencies	Communication skills
	Cultural sensitivity
	Empathy
	Group support facilitation
	Non-investigating attitude
	Non-judgmental attitude
Emotional support and intervention competencies	Coping strategies
	Crisis intervention and critical incident stress management
	Emotional support
	Problem-solving guidance
	Psychological first aid
	Psychological assessment and triage
Ethical standards and legal support competencies	Credibility
	Follow-up and continuous improvement
	Legal support
	Maintaining confidentiality
Organisation and role-related competencies	Internal safety and quality evaluations
	Knowledge of stress and trauma
	Referral process and resource activation
	Role-specific knowledge
	Understanding second victim phenomenon
	Workplace-related knowledge
Self-care and motivation competencies	Appreciation
	Calm presence
	Leadership and role model
	Mindfulness
	Motivation techniques
	Resilience building
	Self-care
	Sense of belonging, connection

DISCUSSION

In this scoping review, we identified and framed the key competencies (skills, attitudes and knowledge) needed for peer supporters who assist SVs. The review included a total of 34 studies covering a variety of industry sectors, with the healthcare sector being the most prominent, followed by public safety personnel, the military sector and postal services. Most of the studies adopted an exploratory qualitative design, using questionnaires, observations or interviews to collect data.

Main findings

The instrumental, attitudinal and knowledge-based competencies that peer supporters should possess are directly related to the psychological first aid techniques they are expected to perform. Specifically, they should be capable of practising active listening, reframing and reflective listening and be able to communicate clearly.[31–38 40–45 48 49 51 53–57 59–64] Peer supporters must exhibit empathy, demonstrated through openness[31–33 35 38 41 42 44 49 51 54 64] and be familiar with the resources available within the institution to support the SV.[32–35 38 40–48 50 52 61–63] They should also be knowledgeable about strategies for managing stressful situations[33–35 41 42 50 53 55 56 58–62] and promoting self-care.[32 40 42 48 56 57 63] Lastly, they must have a natural leadership ability that inspires trust in others.[39 41 44 47 49 51 52 54 57 63 64] This profile has been found to be consistently demanded across various industries considered in this study, including healthcare, armed forces, firefighting and police.[38 41 42 51 55 64]

Interestingly, although this review did not limit the type of industry, the 34 studies included cover only eight different industries: healthcare, military, postal services and public safety personnel, further divided into profiles such as police, firefighters, rescue and protection, correctional officers and a mixed category where these and other emergency profiles are combined. This review missed representation from sectors such as aviation, transport and energy, from which no work was extracted. In both scientific and grey literature, different sectors have highlighted the importance of maintaining a zero-error environment, identifying the emotional impact following traumatic events or errors similar to those known for SVs and developing interventions to help them recover.[65] This may be due to the difficulty of identifying SVs without a common term across all industries.[65] It may also be because, in these sectors, while interventions to reduce the distress of SVs are being implemented, peer support programmes are not yet well developed, and the competencies required by peer supporters have not been studied. Similarly, while the healthcare sector has produced a substantial amount of literature on peer support programmes for SVs,[3 66–69] there is limited coverage on the specific competencies that need to be trained by peer supporters.

Despite the different industrial sectors reviewed, there is significant consistency in the competencies identified. This is partly because the response to highly stressful situations is a human condition shared regardless of the sector, although the intensity may vary depending on the perceived severity of the threat. Interpersonal communication skills were consistently identified as essential competencies across all studies, indicating that these skills are necessary for peer supporters regardless of the industrial context or profession. Additionally, psychological assessment and triage were frequently pointed out, suggesting that peer supporters need to perform a basic evaluation to assess the severity of SVs' symptoms and refer them to higher levels of care if necessary. Another frequently identified competency is the knowledge of stress and trauma, implying that peer supporters should have a basic understanding of the symptoms and signs of stress and the functioning of trauma. Moreover, peer supporters must maintain a non-judgmental attitude and confidentiality, which is critical for professionals to seek help without feeling judged or fearing for their reputation. Empathy and credibility as professionals were found to be equally important across different contexts.

However, essential differences were found in the industrial sectors analysed, shaped by each industry's specific context. For instance, in the military and healthcare sectors, a deep understanding of organisational structure is crucial,[41 59] whereas in postal services, other specific aspects are emphasised.[53] In sectors like firefighting and veterans' affairs, training includes addressing substance abuse and alcohol issues, with a particular focus on suicide prevention.[38 41] Interestingly, only the healthcare sector incorporates practices such as self-care,[32 40 42 48 56 57 63] resilience building,[42 56 57 60 61] mindfulness[56 63] and the importance of non-investigative approaches to healthcare errors.[32 33]

Practical implications

Peer supporters require basic training to effectively support SVs who place their trust in them. This study highlights that having experienced being a SV is not sufficient. Training in active listening, reframing and reflective listening techniques ensures that peer supporters can communicate effectively and be understood. According to the 5-tier ERNST model,[70] training should also include acquiring competencies to share stress management and self-care strategies, as the SV needs to reinforce resilience and enhance self-care strategies after the critical phase. Highly stressful situations are recurrent in professional careers.[71 72] A resilient professional is better equipped to cope with stressful events, showing greater emotional balance and lower psychological burden.[73 74] Moreover, structured peer support interventions have been associated with improved emotional recovery and enhanced professional resilience.[10 75]

This training should combine various active learning techniques such as case studies, simulations and role-playing scenarios. Based on these findings, training should be accompanied by acquiring knowledge about available resources to provide proper guidance, including knowing when to refer to mental health services. A possible structure would allocate at least 40% of the content to practical training, delivered through simulations, role-play exercises and supervised practice. Participant selection criteria should ensure an appropriate professional background as well as a demonstrated empathetic profile. The training programme could incorporate standardised assessment tools, ongoing supervision and external certification, aligning with emerging evidence and established best practices. In terms of content, it would be advisable to integrate elements of Psychological First Aid, especially

for the initial response to distress, as well as to consider the ERNST model,[70] which includes a strong emphasis on prevention and system-level responses. These frameworks can guide the development of a comprehensive and structured training model.

Customised training content should address specific scenarios and challenges relevant to healthcare, industry, armed forces, firefighting and police. Building a team of trainers from diverse industries could enhance these programmes and the capacity of peer supporters, as they face similar human condition-related problems across these fields.

Future research

Implementing a system for ongoing evaluation and feedback would allow for necessary adjustments based on peer supporter performance and feedback. This aspect should be further explored in future studies to deepen the understanding and effectiveness of peer support training programmes.

Limitations

Our review focused on mapping the core competencies necessary for peer supporters to assist SVs. Given that the term SV has been predominantly used in the healthcare sector, we did not limit our search to this term alone but extended it to its meaning. To address this limitation, we employed various databases from different disciplines, ensuring that the terms used were not restricted to the healthcare sector. This approach aimed to include more studies on the competencies of individuals who provide initial support to colleagues feeling responsible for having caused or being about to cause significant harm to others (eg, following a medical error, an inappropriate manoeuvre, insufficient maintenance). However, the challenge of identifying this type of individual without a universally accepted term may have still constrained our ability to fully capture all relevant aspects. Additionally, the initial list of competencies was not subjected to a critical secondary review by a group of experts, which could have provided a more rigorous validation of the results. The subjectivity of our process, despite our efforts to be systematic, may represent a potential limitation in the reliability and comprehensiveness of the study. Furthermore, although it is not mandatory for a scoping review, we did not carry out a critical appraisal of the quality of the sources consulted. We believe that future research should include a critical assessment of the quality of the sources and validation of the identified competencies and a consultation with experts in the field.

To assess the quality of the included studies, we chose to analyse indicators of journal quality and the publication's impact within the scientific community, such as the impact factor, the JIF Rank and the number of citations each study had received at the time of analysis. Future research on this topic could adopt a standardised evaluation of evidence strength, using established scales or methodological frameworks to ensure a more systematic and rigorous assessment.

CONCLUSION

The scoping review underscores the importance of having a well-defined set of competencies (skills, attitudes and knowledge) for peer supporters who assist SVs. The findings highlight the necessity for comprehensive and structured training that includes communication and interpersonal skills, emotional competencies, first psychological aid, motivation techniques and self-care competencies. They also pointed out the need to incorporate role-specific knowledge, such as understanding the SV phenomenon, the legal implications of critical incidents and the available support resources.

Although our results support these key competencies across the different industries, it is also important to adapt the programmes to the professional setting and the intrinsic characteristics of the industry, allowing peer supporters to develop the attitudes, skill set and knowledge necessary to provide effective and empathic support to colleagues in need.

The results of this review can inform the design, general and specific contents and implementation of training and support programmes for peer supporters in a variety of professional settings.

Author affiliations
[1]Health Psychology, Miguel Hernandez University of Elche, Elche, Spain
[2]Atenea Research Group, FISABIO, Valencia, Spain
[3]Department of Translational Medicine, Università del Piemonte Orientale, Novara, Italy
[4]Quality Work and Quality Development – Austrian National Public Health Institute, Wien, Austria
[5]The Second Victim Association, Wien, Austria
[6]Wiesbaden Institute for Healthcare Economics and Patient Safety, Hochschule RheinMain, Wiesbaden, Germany
[7]Direzione Medica dei Presidi Ospedalieri, Azienda Ospedaliero-Universitaria di Alessandria, Alessandria, Italy
[8]KU Leuven, Department of Public Health and Primary Care, Leuven Institute for Healthcare Policy, Leuven, Belgium
[9]NOVA National School of Public Health, Public Health Research Centre, Comprehensive Health Research Center (CHRC), NOVAUniversity Lisbon, Lisbon, Portugal

Contributors JJM, as the guarantor, accepts full responsibility for the work and the conduct of the study, had access to the data and controlled the decision to publish. JJM, CP-E and AS-G contributed to the conceptualisation of the study and developed the protocol. CP-E and AS-G conducted the scoping review. CP-E, AS-G, AC, EP, RS, MP, DS and KV analysed and interpreted the results. CP-E and AS-G wrote the original draft, with support from AC, EP, PS, RS and JJM. All authors contributed to the review and editing of the manuscript. JJM and PS supervised the work. RAYYAN was used as a tool to facilitate the systematic review process, specifically in the selection and evaluation of relevant articles for the review. This tool helped organise the literature and improve the efficiency of the review process.

Funding This publication is based upon work from COST Innovative Grant 'European certification of interventions in support of second victims (RESCUE), IG19113', supported by COST (European cooperation in Science and Technology) (www.cost.eu).

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, conduct, reporting or dissemination plans of this research.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer-reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as supplementary information.

ORCID iDs
Alicia Sánchez-García http://orcid.org/0009-0001-7943-3030
Clara Pérez-Esteve http://orcid.org/0009-0008-8009-0507
Eva Potura http://orcid.org/0009-0009-1713-1510
Reinhard Strametz http://orcid.org/0000-0002-9920-8674
Deborah Seys http://orcid.org/0000-0003-4966-3879
Paulo Sousa http://orcid.org/0000-0001-9502-6075
José Joaquín Mira http://orcid.org/0000-0001-6497-083X

REFERENCES

1 Robertson JJ, Long B. Suffering in Silence: Medical Error and its Impact on Health Care Providers. *J Emerg Med* 2018;54:402–9.
2 Bardon C, Dargis L, Mishara BL. Impact of Railway Critical Incidents on Train Drivers and Effectiveness of Critical Incident Management and Support Protocols: A Recovery Trajectory Analysis. *J Occup Environ Med* 2022;64:e70–7.
3 Busch IM, Moretti F, Campagna I, *et al*. Promoting the Psychological Well-Being of Healthcare Providers Facing the Burden of Adverse Events: A Systematic Review of Second Victim Support Resources. *Int J Environ Res Public Health* 2021;18:5080.
4 Vanhaecht K, Seys D, Russotto S, *et al*. An Evidence and Consensus-Based Definition of Second Victim: A Strategic Topic in Healthcare Quality, Patient Safety, Person-Centeredness and Human Resource Management. *Int J Environ Res Public Health* 2022;19:16869.
5 Levine KJ, Carmody M, Silk KJ. The influence of organizational culture, climate and commitment on speaking up about medical errors. *J Nurs Manag* 2020;28:130–8.
6 Kaur AP, Levinson AT, Monteiro JFG, *et al*. The impact of errors on healthcare professionals in the critical care setting. *J Crit Care* 2019;52:16–21.
7 Catino M, Patriotta G. Learning from Errors: Cognition, Emotions and Safety Culture in the Italian Air Force. *Organization Studies* 2013;34:437–67.
8 Wu AW. Medical error: the second victim. The doctor who makes the mistake needs help too. *BMJ* 2000;320:726–7.
9 Seys D, Wu AW, Van Gerven E, *et al*. Health care professionals as second victims after adverse events: a systematic review. *Eval Health Prof* 2013;36:135–62.
10 Scott SD, Hirschinger LE, Cox KR, *et al*. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. *Qual Saf Health Care* 2009;18:325–30.
11 Dekker S. Second Victim. Error, Guilt, Trauma, and Resilience. CRC Press, 2013.
12 Regel S. n.d. Post-trauma support in the workplace: the current status and practice of critical incident stress management (CISM) and psychological debriefing (PD) within organizations in the UK. *Occup Med*57:411–6.
13 Chan ST, Khong PCB, Wang W. Psychological responses, coping and supporting needs of healthcare professionals as second victims. *Int Nurs Rev* 2017;64:242–62.
14 Mira JJ, Carrillo I, Guilabert M, *et al*. The Second Victim Phenomenon After a Clinical Error: The Design and Evaluation of a Website to Reduce Caregivers' Emotional Responses After a Clinical Error. *J Med Internet Res* 2017;19:e203.
15 Guerra-Paiva S, Lobão MJ, Simões DG, *et al*. Key factors for effective implementation of healthcare workers support interventions after patient safety incidents in health organisations: a scoping review. *BMJ Open* 2023;13:e078118.
16 New L, Lambeth T. Second-Victim Phenomenon. *Nurs Clin North Am* 2024;59:141–52.
17 Seys D, Scott S, Wu A, *et al*. Supporting involved health care professionals (second victims) following an adverse health event: a literature review. *Int J Nurs Stud* 2013;50:678–87.
18 Carbone R, Ferrari S, Callegarin S, *et al*. Peer support between healthcare workers in hospital and out-of-hospital settings: a scoping review. *Acta Biomed* 2022;93:e2022308.
19 Gil-Hernández E, Carrillo I, Tumelty M-E, *et al*. How different countries respond to adverse events whilst patients' rights are protected. *Med Sci Law* 2024;64:96–112.
20 Rodriquez J, Scott SD. When Clinicians Drop Out and Start Over after Adverse Events. *Jt Comm J Qual Patient Saf* 2018;44:137–45.
21 White RM, Delacroix R. Second victim phenomenon: Is "just culture" a reality? An integrative review. *Appl Nurs Res* 2020;56:151319.
22 Berman L, Rialon KL, Mueller CM, *et al*. Supporting recovery after adverse events: An essential component of surgeon well-being. *J Pediatr Surg* 2021;56:833–8.
23 Baas MAM, Scheepstra KWF, Stramrood CAI, *et al*. Work-related adverse events leaving their mark: a cross-sectional study among Dutch gynecologists. *BMC Psychiatry* 2018;18:73.
24 Strametz R, Fendel JC, Koch P, *et al*. Prevalence of Second Victims, Risk Factors, and Support Strategies among German Nurses (SeViD-II Survey). *Int J Environ Res Public Health* 2021;18:10594.
25 Cobos-Vargas A, Pérez-Pérez P, Núñez-Núñez M, *et al*. Second Victim Support at the Core of Severe Adverse Event Investigation. *Int J Environ Res Public Health* 2022;19:16850.
26 Mira JJ, Lorenzo S, Carrillo I, *et al*. Lessons learned for reducing the negative impact of adverse events on patients, health professionals and healthcare organizations. *Int J Qual Health Care* 2017;29:450–60.
27 Tricco AC, Lillie E, Zarin W, *et al*. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med* 2018;169:467–73.
28 Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005;8:19–32.
29 Peters M, Godfrey C, McInerney P, *et al*. The Joanna Briggs Institute Reviewers' Manual 2015: Methodology for JBI Scoping Reviews. Adelaide, SA Australia: The Joanna Briggs Institute, 2015.
30 Pollock D, Peters MDJ, Khalil H, *et al*. Recommendations for the extraction, analysis, and presentation of results in scoping reviews. *JBI Evid Synth* 2023;21:520–32.
31 Connors CA, Dukhanin V, Norvell M, *et al*. RISE: Exploring Volunteer Retention and Sustainability of a Second Victim Support Program. *J Healthc Manag* 2021;66:19–32.
32 Edrees H, Connors C, Paine L, *et al*. Implementing the RISE second victim support programme at the Johns Hopkins Hospital: a case study. *BMJ Open* 2016;6:e011708.
33 El Hechi MW, Bohnen JD, Westfal M, *et al*. Design and Impact of a Novel Surgery-Specific Second Victim Peer Support Program. *J Am Coll Surg* 2020;230:926–33.
34 Fall F, Hu YY, Walker S, *et al*. Peer Support to Promote Surgeon Well-being: The APSA Program Experience. *J Pediatr Surg* 2024;59:1665–71.
35 Geevarghese SK, Pomfret EA. Peer support networks: A local approach to the global issue of moral injury in surgical training and practice. *Can Urol Assoc J* 2021;15:S33–5.
36 Greenstone JL. Peer Support for Police Hostage and Crisis Negotiators. *J Police Crisis Negot* 2005;5:45–55.
37 Grohs M. Pressure Points. *Corrections Forum* 2021;30:26–30.
38 Gulliver SB, Cammarata CM, Leto F, *et al*. Project Reach Out: A training program to increase behavioral health utilization among professional firefighters. *Int J Stress Manag* 2016;23:65–83.
39 Hundt NE, Robinson A, Arney J, *et al*. Veterans' Perspectives on Benefits and Drawbacks of Peer Support for Posttraumatic Stress Disorder. *Mil Med* 2015;180:851–6.
40 Krzan KD, Merandi J, Morvay S, *et al*. Implementation of a "second victim" program in a pediatric hospital. *Am J Health Syst Pharm* 2015;72:563–7.
41 Kumar A, Azevedo KJ, Factor A, *et al*. Peer support in an outpatient program for veterans with posttraumatic stress disorder: Translating participant experiences into a recovery model. *Psychol Serv* 2019;16:415–24.

42 Lane MA, Newman BM, Taylor MZ, *et al*. Supporting Clinicians After Adverse Events: Development of a Clinician Peer Support Program. *J Patient Saf* 2018;14:e56–60.
43 Merandi J, Liao N, Lewe D, *et al*. Deployment of a Second Victim Peer Support Program: A Replication Study. *Pediatr Qual Saf* 2017;2:e031.
44 Redwood SK, Pollak MH. Student-led stress management program for first-year medical students. *Teach Learn Med* 2007;19:42–6.
45 Scott SD, Hirschinger LE, Cox KR, *et al*. Caring for our own: deploying a systemwide second victim rapid response team. *Jt Comm J Qual Patient Saf* 2010;36:233–40.
46 Simms L, Ottman KE, Griffith JL, *et al*. Psychosocial Peer Support to Address Mental Health and Burnout of Health Care Workers Affected by COVID-19: A Qualitative Evaluation. *Int J Environ Res Public Health* 2023;20:4536.
47 van Pelt F. Peer support: healthcare professionals supporting each other after adverse medical events. *Qual Saf Health Care* 2008;17:249–52.
48 GSJr E, Kennedy CM. Content Validation of the Johns Hopkins Model of Psychological First Aid (RAPID-PFA) Expanded Curriculum. *Crisis, Stress, and Human Resilience: An International Journal* 2019;1:6–13.
49 Gould M, Greenberg N, Hetherton J. Stigma and the military: evaluation of a PTSD psychoeducational program. *J Trauma Stress* 2007;20:505–15.
50 Greenberg N, Langston V, Iversen AC, *et al*. The acceptability of "Trauma Risk Management" within the UK Armed Forces. *Occup Med* 2011;61:184–9.
51 Hunt E, Jones N, Hastings V, *et al*. TRiM: an organizational response to traumatic events in Cumbria Constabulary. *Occup Med* 2013;63:549–55.
52 Weir B, Cunningham M, Abraham L, *et al*. Military veteran engagement with mental health and well-being services: a qualitative study of the role of the peer support worker. *J Ment Health* 2019;28:647–53.
53 Freeman DGH, Carson M. Developing Workplace Resilience. *J Workplace Behav Health* 2006;22:113–21.
54 Jones C, Bright K, Smith-MacDonald L, *et al*. Peers supporting reintegration after occupational stress injuries: A qualitative analysis of a workplace reintegration facilitator training program developed by municipal police for public safety personnel. *The Police Journal: Theory, Practice and Principles* 2022;95:152–69.
55 Jones C, Smith-MacDonald L, Pike A, *et al*. Workplace Reintegration Facilitator Training Program for Mental Health Literacy and Workplace Attitudes of Public Safety Personnel: Pre-Post Pilot Cohort Study. *JMIR Form Res* 2022;6:e34394.
56 Korman MB, Steinberg R, Gagliardi L, *et al*. Implementing the STEADY Wellness Program to Support Healthcare Workers throughout the COVID-19 Pandemic. *Healthcare (Basel)* 2022;10:1830.
57 Knezevic A, Olcoń K, Smith L, *et al*. Wellness Warriors: a qualitative exploration of healthcare staff learning to support their colleagues in the aftermath of the Australian bushfires. *Int J Qual Stud Health Well-Being* 2023;18:2167298.
58 Lewis V, Varker T, Phelps A, *et al*. Organizational implementation of psychological first aid (PFA): Training for managers and peers. *Psychological Trauma: Theory, Research, Practice, and Policy* 2014;6:619–23.
59 Scully PJ. Taking care of staff: A comprehensive model of support for paramedics and emergency medical dispatchers. *Traumatology (Tallahass Fla)* 2011;17:35–42.
60 Hannig C, Lotzin A, Milin S, *et al*. Stress- und Traumaprävention für Beschäftigte im Gesundheitsbereich. *Trauma & Gewalt* 2021;15:232–42.
61 Hinzmann D, Forster A, Koll-Krüsmann M, *et al*. Calling for Help-Peer-Based Psychosocial Support for Medical Staff by Telephone-A Best Practice Example from Germany. *Int J Environ Res Public Health* 2022;19:15453.
62 Hinzmann D, Koll-Krüsmann M, Forster A, *et al*. First Results of Peer Training for Medical Staff-Psychosocial Support through Peer Support in Health Care. *Int J Environ Res Public Health* 2022;19:16897.
63 Moir F, Henning M, Hassed C, *et al*. A Peer-Support and Mindfulness Program to Improve the Mental Health of Medical Students. *Teach Learn Med* 2016;28:293–302.
64 Lavrič A. Usposabljanje za psihološko pomoč v sistemu varstva pred naravnimi in drugimi nesrečami. *AS* 2014;20:35–42.
65 Conti A, Sánchez-García A, Ceriotti D, *et al*. Second Victims in Industries beyond Healthcare: A Scoping Review. *Healthcare (Basel)* 2024;12:1835.
66 Roesner H, Neusius T, Strametz R, *et al*. Economic Value of Peer Support Program in German Hospitals. *Int J Public Health* 2024;69:1607218.
67 Guerra-Paiva S, Carrillo I, Mira J, *et al*. Developing Core Indicators for Evaluating Second Victim Programs: An International Consensus Approach. *Int J Public Health* 2024;69:1607428.
68 Bursch B, Ziv K, Marchese S, *et al*. Department of Anesthesiology Skilled Peer Support Program Outcomes: Second Victim Perceptions. *Jt Comm J Qual Patient Saf* 2024;50:442–8.
69 Werthman JA, Brown A, Cole I, *et al*. Second Victim Phenomenon and Nursing Support: An Integrative Review. *J Radiol Nurs* 2021;40:139–45.
70 Seys D, Panella M, Russotto S, *et al*. In search of an international multidimensional action plan for second victim support: a narrative review. *BMC Health Serv Res* 2023;23:816.
71 Seidler A, Schubert M, Freiberg A, *et al*. Psychosocial occupational exposures and mental illness—a systematic review with meta-analyses. *Dtsch Arztebl Int* 2022.
72 Lentz L, Smith-MacDonald L, Malloy DC, *et al*. A Qualitative Analysis of the Mental Health Training and Educational Needs of Firefighters, Paramedics, and Public Safety Communicators in Canada. *Int J Environ Res Public Health* 2022;19:6972.
73 Parks-Savage A, Archer L, Newton H, *et al*. Prevention of medical errors and malpractice: Is creating resilience in physicians part of the answer? *Int J Law Psychiatry* 2018;60:35–9.
74 Guo YF, Luo YH, Lam L, *et al*. Burnout and its association with resilience in nurses: A cross-sectional study. *J Clin Nurs* 2018;27:441–9.
75 Hu Y-Y. Physicians' Needs in Coping With Emotional Stressors. *Arch Surg* 2012;147:212.