

Secondary Traumatic Stress Among Healthcare Providers

Ghita Moussaoui

Thesis leading to the degree of Master in Neuropsychology and Health Psychology

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Ghita Moussaoui

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Neuropsychology and Health Psychology**

Thesis

Work carried out under the guidance of
Pr Jose Carlos Rocha

DECLARATION OF INTEGRITY

I, the student identified above, declare that I have acted with absolute integrity in the preparation of this work, which is original and of my own authorship. I confirm that in all the work leading to its preparation I have not resorted to any form of falsification of results or to the practice of plagiarism (an act by which an individual, even by omission, assumes the authorship of the intellectual work belonging to another, in its entirety or in parts of it). I also declare that all the sentences I have taken from previous works by other authors have been referenced or reworded, in which case I have cited the bibliographic source.

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stress, and discovery. I carry with me the memory of our shared efforts. May the echoes of these two years remind us that no journey is traveled alone.

Abstract

Objective: The aim of the research is to study the issue of secondary traumatic stress (STS) in medical professionals.

Method: The study is a cross-sectional quantitative research of 159 healthcare workers conducted in France and Morocco. The information was gathered with validated scales including the Professional Quality of Life Scale (ProQOL), WHO-5 Well-Being Index and Traumatic Events in the Healthcare Context (TEHC). Descriptive statistics, tests of reliability, t-tests involving independent samples and Pearson correlation, were evaluated using JASP.

Results: Results show moderate burnout and STS, and comparatively high levels of compassion satisfaction. STS is not considerably linked to gender, age, and years of practice, which suggests its universal nature among the demographic groups. There are also strong negative correlations between STS and psychological well-being, which shows the adverse effect of the former on mental wellness. The correlations between specific traumatic events indicate that all are correlated with Secondary Traumatic Stress and the systemic stressors, including lack of support, recognition, stigmatisation, ethical dilemmas, and professional burnout, significantly correlated negatively with Wellbeing and positively with Burnout.

Discussion: STS is a significant professional risk to healthcare providers, not due to demographic attributes or clinical experience but because of institutional and organizational factors. To protect the psychological stability of medical professionals and guarantee the sustainability and high-quality care, it is crucial to increase support, recognition, and organizational culture, and decrease stigmatisation and moral tension. Furthermore, the healthcare workers feel STS and burnout in workplaces but compassion satisfaction enables the healthcare workers to provide quality care to individuals.

Keywords: Secondary traumatic stress, burnout, compassion satisfaction, trauma, healthcare providers, psychological well-being

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List of Abbreviations

STS	Secondary Traumatic Stress
CS	Compassion Satisfaction
PTSD	Post-traumatic stress disorder
ED	Emergency Department
ICU	Intensive Care Unit
STSS	Secondary Traumatic Stress Scale
ProQOL	Professional Quality of Life Scale
JASP	Jeffrey Amazing Statistics Program
TEHC	Traumatic Events in Healthcare Context

Introduction

Secondary Traumatic Stress (STS) refers to the psychological distress that results from indirect exposure to the traumatic experiences of others. It commonly occurs among professionals who work closely with trauma survivors, such as healthcare providers, social workers, and mental health practitioners. Through repeated exposure to patients' accounts of traumatic events, observation of their suffering, or prolonged engagement in caregiving within highly stressful environments, professionals may develop trauma-related symptoms themselves (Smith, 2024). Unlike occupational burnout, which primarily arises from chronic workplace stress and emotional exhaustion, STS is characterised by symptoms that parallel those of post-traumatic stress. These may include intrusive thoughts related to patients experiences, avoidance of trauma-related stimuli, hyperarousal, and emotional numbing (Woods, 2024).

The concept of Secondary Traumatic Stress (STS) is grounded in trauma theory and was formally articulated by Charles R. Figley (1995) within the Compassion Fatigue Model. This theoretical framework describes the psychological distress experienced by professionals who are indirectly exposed to traumatic events through their work with individuals who have experienced trauma (Taylor, 2021). In such contexts, the empathic engagement required in caregiving and helping professions may lead professionals to internalise aspects of their patients traumatic experiences, thereby increasing their vulnerability to trauma-related stress reactions. Unlike burnout, which generally develops progressively as a result of prolonged exposure to chronic occupational stressors, STS may emerge more rapidly following repeated or intense empathic interactions with traumatised individuals (Molnar et al., 2020). The development of STS is therefore closely associated with the process of empathic engagement and the emotional demands inherent in trauma-focused work. According to Ogińska-Bulik et al. (2021), the symptomatology of STS closely parallels that of Post-Traumatic Stress Disorder (PTSD), including intrusive thoughts related to patients traumatic experiences, avoidance of trauma-related stimuli, heightened physiological arousal, and emotional numbing. The symptoms

of STS are commonly categorised into three main clusters: intrusion, avoidance, and arousal. Intrusion symptoms refer to the involuntary re-experiencing of traumatic material encountered through patients narratives. These manifestations may include recurrent and distressing thoughts, intrusive mental images, or dreams related to the traumatic experiences described by patients (Amberson & Quarry, 2025).

Avoidance symptoms refer to efforts to evade reminders associated with patients' trauma or the emotional distress it provokes. Such responses may include emotional detachment from patients, withdrawal from trauma-related professional interactions, or deliberate attempts to suppress distressing thoughts and feelings connected to patients experiences (Amberson & Quarry, 2025). In the long term, the persistence of STS symptoms may have significant consequences not only for the psychological well-being of healthcare professionals but also for the quality of care delivered to patients. Prolonged exposure to secondary trauma has been associated with decreased job satisfaction, increased absenteeism, and higher turnover intentions among healthcare workers. Moreover, these psychological strains may reduce clinicians emotional availability and empathy toward patients, thereby potentially compromising therapeutic relationships and clinical performance (Comparcini et al., 2025).

According to Proudfoot (2025), STS is particularly prevalent among healthcare providers who are regularly exposed to patient trauma, serious illnesses, and mortality. The frequent confrontation with life-threatening conditions and emotionally distressing situations places these providers at heightened risk for developing trauma-related stress symptoms. Expanding on this, Hofer (2025) emphasizes that both the severity and the cumulative volume of traumatic exposures are critical determinants of STS. Healthcare providers, including nurses, emergency clinicians, and other frontline staff, are particularly vulnerable to STS due to their continuous exposure to patient trauma, suffering, and death inherent in direct patient care roles, which constitutes an occupational hazard with significant emotional and psychological costs (Zacharias & Upendra, 2024). Not only does it have an effect on their mental and physical health, but also on professional functioning, empathy and ultimately quality of patient care. According to Alshammari et al. (2024), nurses are the most susceptible group especially when they are

deployed to high-intensity environments like Emergency Departments (ED). Hu et al. (2024) add that nurses working in the Intensive Care Unit (ICU) have a moderate level of STS by collecting data from 229 nurses working in a Chinese hospital.

According to Park et al. (2025), medical staff working in EDs or trauma care settings are particularly susceptible to STS. The development of STS is influenced by a combination of symptomatic, occupational, and personal factors. Individual characteristics such as years of professional experience, age, gender, and work shifts have been identified as significant predictors of STS among healthcare providers. Interventions targeting both psychological well-being and occupational support have been shown to mitigate risk, enhance resilience, and improve coping strategies for at-risk nurses and other frontline staff. Researchers indicate that early detection and targeted intervention for STS in nurses is essential to reduce its burden, as synthesised evidence shows that routine assessment of risk and implementation of psychological support strategies can mitigate STS symptoms and improve both caregiver well-being and care outcomes (Tracy & Zadinsky, 2025). Furthermore, a cross-sectional research survey of 212 medical workers explored the level of STS in various hospital departments (Öztürk and Barutcu, 2022). Results indicated that STS was above average among healthcare workers in general, with higher scores in the internal medicine unit than surgical unit staff. The findings indicate that the kind of unit and the working conditions are relevant to high STS irrespective of the professional role. This research of Öztürk and Barutcu (2022) stresses that STS not only take place in high-intensity care environments such as emergency or the ICU but also in internal units where workloads and trauma of dealing with the suffering of patients can also cause STS.

According to Orrù et al. (2021), STS is associated with high workload, extended work shifts, and repeated exposure to traumatic events. Similarly, Sinnathamby et al. (2025) highlight that in oncology and palliative care settings, the risk of STS arises from a different but equally significant source: prolonged exposure to patient suffering and end-of-life care. These professional environments are characterised by elevated emotional stress, which can contribute

to the chronic development of STS symptoms. Additionally, mental health providers including psychiatrists, psychologists, and counselors are also at heightened risk, as they are routinely exposed to patients distressing narratives, further increasing their vulnerability to STS (Leung et al., 2023). Furthermore, STS is more prone to providers who have previously experienced trauma, low resilience, or have poor coping skills (Meyerson et al., 2022).

According to Powell (2024), STS is particularly associated with healthcare organizations that are chronically understaffed, lack adequate leadership support, or maintain non-supportive organizational cultures. Within such organizational contexts, STS has been linked to several adverse professional outcomes, including reduced job satisfaction, emotional insensitivity, diminished work engagement, and increased turnover intentions (Comparcini et al., 2025). These findings underscore the critical role of organizational factors in both the development and the mitigation of STS among healthcare providers, highlighting the need for supportive work environments and effective management strategies. Healthcare workers who are repeatedly exposed to secondary trauma are at risk of losing interest in their work, which can contribute to workforce shortages and increased recruitment costs. According to Cuthill (2025), the impact of secondary trauma can be mitigated by organizational strategies that promote teamwork, implement systematic debriefing, and provide strong leadership support. STS is particularly sensitive to adequate staffing levels and manageable workloads, highlighting the importance of structural and operational factors in healthcare settings. Moreover, incorporating staff well-being into institutional policies represents a proactive approach to occupational stress, rather than a reactive one (Darko, 2024).

STS has a huge effect on the mental health stability of health practitioners. The most common symptoms are intrusive thoughts, emotional numbness, irritability, sleep disturbances, anxiety, and depression (Boatswain, 2023). In the long run these symptoms may lead to burnout, chronic fatigue and somatic symptoms like a headache or gut problems. It may also result in the loss of empathy, withdrawal, and hopelessness among the healthcare providers which further

worsens personal and professional functioning (Ulaş & Seçer, 2025). Furthermore, STS influences the quality and safety of patient care. According to Moreno-Jiménez et al. (2023), the providers who undergo high levels of stress are more likely to make mistakes, their communication is worse and they have less capacity to provide compassionate care.

Interventions can be used to enhance resilience and deal with STS. Mindfulness-based stress reduction (MBSR), meditation, yoga and resilience training are the programs that can be used to decrease stress, anxiety, and STS symptoms among medical providers (La Torre et al., 2020).

Individuals experiencing more severe symptoms can be treated with the help of cognitive-behavioural approaches and professional counselling (Qian et al., 2022).

According to Zacharias and Upendra (2024), healthcare providers (HCPs) involved in direct patient care are frequently exposed to patient traumas, placing them at increased risk for the development of Secondary Traumatic Stress (STS), which is recognised as a significant occupational hazard in clinical settings. In a systematic review conducted by Zacharias and Upendra (2024) of 18 quantitative studies published between 2013 and 2024, the authors examined the prevalence and correlates of STS among HCPs. High levels of STS were consistently observed using the Secondary Traumatic Stress Scale (STSS). Key predictors of STS included emotional exhaustion, frequent exposure to high-intensity stressors, patient death, and reduced job satisfaction. Conversely, self-care practices, physical activity, social support, and participation in structured debriefing sessions were identified as protective factors that may mitigate the impact of STS. The research of Zacharias and Upendra (2024) underlines the immense emotional and psychological impact on the healthcare providers and the significance of preventive strategies to minimise the effect of STS.

Denman et al. (2025) examined STS in clinicians providing burn care. Individuals working in burn care are particularly susceptible to stress because of the traumatic experience of burn injuries, the painful and repeated treatment procedures, and the fact that the burn care patient requires long-term care. The results based on STSS indicate that even though the level of STS was generally mild, there are specific positions which reported higher levels such as wound

care technicians and nurses. The exposure to patient trauma causes avoidance symptoms among the healthcare providers. The findings reveal that STS is an issue in burn care providers and has possible consequences to clinicians and patients. The research identifies the necessity of specific prevention and intervention measures that can be used to assist burn care providers. Furthermore, Kendall-Tackett and Beck (2022), analysed STS and moral injury in maternity providers, such as the laboratory and delivery nurses, midwives, and obstetricians. The research indicates that STS affected at least 25% of maternity staff across countries, but prevalence differed, and was also associated with maternal rates of childbirth-related trauma. Symptoms were re-experiencing, avoidance, negative mood, and hyperarousal, which could frequently affect job performance.

Additionally, Shalabi et al. (2023) conducted a cross-sectional research that analysed STS in physiotherapists working with cardiology, critical care, mental health, neurology and pulmonology in Saudi Arabia. Results indicated that STS was a big problem, where physiotherapists reported low to high distress. Higher stress was also identified to be associated with long working hours and lack of rest. Miller and Pehlke (2022) add that long work hours and insufficient rest make healthcare workers more susceptible to STS by reducing resilience and the inability to regulate emotions. Furthermore, Lykins et al. (2024) also indicate that prolonged fatigue reduces coping capacity and exposes the provider to the mental effects of exposure to patient trauma.

The COVID-19 pandemic has amplified the risk of STS among healthcare providers at an unprecedented rate. According to Moreno-Jiménez et al. (2021), frontline workers were frequently overwhelmed by the sheer volume of patients, regularly confronted with death and suffering, and experienced moral injury stemming from resource shortages and the fear of infection. Consequently, during the pandemic, rates of STS, burnout, and post-traumatic stress symptoms increased among nurses, physicians, and mental health providers.

Furthermore, Chatham et al. (2023) investigated STS among healthcare professionals during the COVID-19 pandemic. Their mixed-methods study examined professional quality of life across various hospital-based healthcare roles in the United States, including hospitalists,

social workers, residents, and palliative care personnel. While quantitative results obtained using the Professional Quality of Life (ProQOL) scale indicated relatively low levels of compassion fatigue, burnout, and STS, the qualitative data revealed a contrasting picture. Participants reported experiencing substantial emotional strain during the pandemic, characterized by heightened compassion fatigue, burnout, and STS. Furthermore, structural stressors such as safety concerns—perceived risks to personal or patient safety—and value misalignment—conflicts between personal/professional values and organizational

practices—have been identified as significant contributors to STS. İlhan and Küpeli (2022) extended this research by examining emergency healthcare providers during the COVID-19 pandemic. In a cross-sectional study conducted between April and May 2021 with 363 emergency healthcare workers, 71.9% of participants experienced STS, with financial hardships identified as a primary factor contributing not only to STS but also to elevated anxiety and depression. The research of İlhan and Küpeli (2022) highlights the significance of offering psychological, as well as social and financial assistance to health workers working in a high-stress environment.

In light of the current literature, the present study aims to examine STS among healthcare providers and to investigate its relationships with burnout, compassion satisfaction (CS), and psychological wellbeing. The research focuses on healthcare providers from both France and Morocco, seeking to describe the prevalence and intensity of STS and to identify the occupational and emotional stressors that contribute most significantly to its development. To this end, the study applies the Traumatic Events in Healthcare Context (TEHC) questionnaire, specifically designed to assess exposure to potentially traumatic events within healthcare settings.

This study has several objectives. First, it aims to evaluate the internal consistency and other psychometric properties of the ProQOL-V5 subscales (Compassion Satisfaction, Burnout, Secondary Traumatic Stress), the WHO-5 Wellbeing Index, and the TEHC questionnaire. Second, it seeks to describe levels of STS, Burnout, CS, and Wellbeing among healthcare

professionals working in diverse clinical contexts in France and Morocco. Third, the study examines differences in these outcomes across sociodemographic variables, such as gender, professional category, and country of practice. Fourth, it explores the associations between exposure to stressful events (as measured by the TEHC) and professional outcomes, including STS, Burnout, CS, and Wellbeing. Finally, the study aims to identify the most impactful stressors reported by healthcare professionals and to analyze their relative contributions to psychological distress.

Based on previous research, several hypotheses guide the study. It is expected that higher exposure to stressful and potentially traumatic events will be positively associated with STS and Burnout, while being negatively associated with psychological wellbeing. Compassion Satisfaction is hypothesised to serve a protective role, correlating negatively with STS and Burnout and positively with wellbeing. Among the different categories of stressors, lack of organisational support, moral conflicts, stigmatisation, and lack of recognition are anticipated to emerge as the strongest predictors of STS and Burnout. Gender differences are not expected to be statistically significant, though female professionals may show slightly higher levels of Compassion Satisfaction. Finally, healthcare providers operating in psychiatric and emergency care settings are expected to exhibit higher levels of STS compared with those in non-psychiatric environments.

Overall, this study seeks to provide a comprehensive understanding of the mechanisms underlying STS among healthcare providers. By identifying both risk and protective factors, the findings aim to inform the development of effective preventive and supportive interventions within clinical institutions, ultimately promoting both professional wellbeing and quality patient care.

Method

Study Design

The present study employed a quantitative, cross-sectional design. Quantitative research involves systematically collecting and analysing numerical data to directly measure psychological and occupational variables (Ghanad, 2023). It is widely used in healthcare research to obtain credible and generalisable findings through validated instruments. This approach was particularly appropriate for the current study, as the primary aim was to measure levels of STS, burnout, compassion satisfaction (CS), and overall wellbeing among healthcare professionals. These constructs required standardised measurement tools capable of providing numerical indicators that could be statistically analysed and compared across different groups.

A cross-sectional design was adopted, which involves collecting data at a single point in time rather than longitudinally (Maier et al., 2023). In occupational and mental health research, cross-sectional designs are particularly effective for studying correlations between demographic, professional, and psychological variables without the need for extended follow-up, which can be resource-intensive and challenging to implement within clinical populations (Taris et al., 2021). The selection of this design was informed by both practical and methodological considerations.

Overall, the quantitative cross-sectional approach was well-suited to the objectives of the study. It enabled the collection of quantifiable data on the prevalence of STS and its associated factors, provided a foundation for identifying key predictors of psychological distress, and established a basis for the development of future interventions aimed at supporting the wellbeing of healthcare professionals.

Setting of the Study

The research was conducted among French-speaking healthcare providers working in France and Morocco. These two countries were selected due to ease of access and the opportunity to capture diverse healthcare contexts. Both healthcare systems have faced significant challenges in recent years, including high work pressure, staffing shortages, and psychological strain related to excessive workloads and frequent exposure to patient suffering (Søvold et al., 2021). Examining STS in this population provided a valuable perspective on how occupational stress is experienced within healthcare environments.

Participants were employed across a variety of healthcare settings, including hospitals, clinics, private offices, and other health service providers. By incorporating care providers from diverse professional and clinical contexts, the study was able to provide a more comprehensive understanding of STS across different healthcare domains. This heterogeneity enhances the generalisability of the findings and underscores that STS is not confined to a single type of practice or behavioural model, but rather represents a universal occupational risk for individuals working in the healthcare sector.

Population and Sampling

The study sample comprised healthcare practitioners working in France and Morocco. These two countries were selected primarily due to their accessibility and the opportunity to recruit a larger and more diverse sample of participants. This approach enhances the ability to identify role-specific stressors and contributes to a more nuanced understanding of occupational risks within the healthcare sector.

The convenience sampling technique was used because the participants were selected on the basis of their availability and the readiness to participate in the research (Golzar et al., 2022). Convenience sampling was suitable because it is rather inconvenient to recruit healthcare provider, especially taking into account their hectic schedules and workload limitations. Although this technique does not ensure complete representativeness of the overall healthcare workforce, it was appropriate in a research of exploratory nature to determine the level of prevalence and factors that are related to STS among the selected settings (Marciniak-Nuqui et al., 2024).

The study sample consisted of 159 French-speaking healthcare providers, aged between 20 and 80 years ($M = 42.48$, $SD = 14.76$). Participants included psychologists, psychiatrists, psychiatric nurses, occupational therapists, nursing assistants, educators, non-psychiatric physicians, non-psychiatric nurses, psychomotor therapists, and other healthcare professionals. Both male and female participants were represented, with 54 men, 103 women, and 2 individuals who preferred not to disclose their gender. Women comprised the majority of the sample (64.8%), while men represented 34%, reflecting the gender distribution commonly observed in healthcare professions.

Regarding professional experience, the sample included a broad range of career stages. Approximately 44.7% of participants had more than 16 years of experience, 22.6% had 6 to 10 years, 20.8% had 1 to 5 years, and 11.9% had 11 to 15 years. These data indicate that the sample

was predominantly composed of well-experienced professionals, while still incorporating early-career healthcare workers.

In terms of professional categories, non-psychiatric physicians represented the largest group (47.2%), followed by non-psychiatric nurses (12.6%), psychologists (5.7%), and psychiatric nurses (3.8%). Other roles, including occupational therapists, caregivers, and alternative healthcare providers such as sophrologists or hypnotherapists, accounted for the remaining 22% of the sample. Some participants reported experience across multiple work environments, including hospitals, clinics, private offices, and other settings, and were therefore included in more than one category to accurately reflect their professional exposure (Table 1).

Overall, the sample was diverse in terms of professional roles, gender, years of experience, and work environments, allowing for a comprehensive analysis of Secondary Traumatic Stress (STS) across different healthcare contexts.

Table 1:

Sample Characteristics (N=159)

Characteristic	<i>n</i>	%
Gender:		
Females	103	64.8%
Males	54	34.0
Other genders	2	1.3
Years of practice:		
1 – 5	33	20.8
6 – 10	36	22.6
11 – 15	19	11.9
16 +	71	44.7
Professional role:		
Psychologist	9	5.7
Psychiatrist	4	2.5
Psychiatric Nurse (PN)	6	3.8
Occupational therapist	3	1.9
Caregiver	4	2.5
Educator	2	1.3
Doctors (non-psychiatrists)	75	47.2
Nurses (non-psychiatric)	20	12.6
Psychomotricien/enne	1	0.6
Other	35	22
Place of Work:		
Hospital	87	54.72
Clinic	35	22.01
Private Office	50	31.45
Other place of work	23	14.47

Inclusion and Exclusion Criteria

Specific eligibility criteria were established to ensure that the study sample consisted exclusively of healthcare professionals with sufficient clinical experience.

Inclusion criteria:

- Participants had to be currently employed in a healthcare-related position in France or Morocco.
- Participants were required to have at least one year of professional-level experience in their respective healthcare role.
- Participants had to belong to one of the following professional categories: psychologists, psychiatrists, psychiatric nurses (PNs), occupational therapists, nursing assistants, educators, non-psychiatric physicians, non-psychiatric nurses, psychomotor therapists, or other professionals such as sophrologists and hypnotherapists.
- Participants were required to provide informed consent to participate in the study.

Exclusion criteria:

- Participants with less than one year of professional experience in the healthcare field.
- Participants who were not currently employed in a healthcare position.
- Participants who did not complete the questionnaire or declined to provide informed consent.

These eligibility criteria were implemented to minimise the inclusion of healthcare providers lacking adequate and up-to-date occupational exposure, thereby ensuring the quality and integrity of the dataset used for subsequent analyses.

Data Collection Procedure

Data for this study were collected from healthcare providers using an online survey administered through the LimeSurvey platform. The use of LimeSurvey facilitated the recruitment of participants across diverse regions in both France and Morocco (Piispa, 2023).

Primary data for this study were collected using an online survey administered via the LimeSurvey platform. LimeSurvey was selected because it is secure, user-friendly, widely employed in academic research, and capable of efficiently managing large volumes of data (Englert et al., 2023). The online format was particularly advantageous for this study, as it allowed healthcare providers to participate regardless of their work positions or shift schedules (Newman et al., 2021).

Given the demanding and unpredictable nature of healthcare work, the survey provided participants with the flexibility to complete it at a convenient time, thereby accommodating their professional responsibilities. Furthermore, the electronic format ensured participant anonymity and minimised potential barriers to participation, such as geographic location and time differences, which enhanced accessibility and the reliability of the collected data.

A convenience sampling method was employed for participant recruitment. Invitations were distributed online through professional networks, institutional mailing lists, and web-based platforms commonly visited by healthcare practitioners (Van Quaquebeke et al., 2022). The invitation letter provided a clear explanation of the study's objectives, the estimated time required to complete the survey, and assurances that participation was voluntary and confidential. Participants were then redirected via a secure link to the LimeSurvey platform, where the questionnaire was hosted.

Participants were able to complete the survey at their convenience, allowing flexibility around demanding work schedules. Responses were automatically stored in a secure database, and no personal identifying information was collected, ensuring the anonymity of all

participants. This recruitment and data collection approach facilitated broad participation while maintaining ethical standards and data security.

Instruments (Measures)

Data were collected using a combination of standardized psychometric instruments and a custom-designed questionnaire. The use of validated tools ensured that psychological constructs could be measured with high reliability and credibility, while also allowing for meaningful comparisons with prior research in the field (Flake et al., 2022).

The measures included a sociodemographic questionnaire, the WHO-5 Well-Being Index, the Professional Quality of Life Scale (ProQOL), and a researcher-developed questionnaire listing a series of potentially traumatic events specific to healthcare providers. This combination of standardized and tailored instruments allowed for a comprehensive assessment of both the personal and professional factors contributing to Secondary Traumatic Stress (STS), burnout, compassion satisfaction, and overall wellbeing among participants.

The sociodemographic questionnaire was developed to provide the background information about the participants. It included questions related to age, gender, work position and experience. These data were used to describe the sample as well as the investigation of potential correlations between the sociodemographic factors and the results regarding STS, burnout, and well-being.

In addition, the Well-Being Index was used to assess overall psychological well-being. The WHO-5 is a self-reported measure of the prevailing mental health. It has 5 items, and the measurement of these items is done on the 6-point Likert scale (Nylén-Eriksen et al., 2022). It is also applied both in clinical and non-clinical settings and delivers good validity and reliability.

Moreover, the WHO-5 was short and straightforward, which made it applicable to the present study.

The positive and negative outcomes of working in helping professions were assessed using the Professional Quality of Life Scale (ProQOL). This 30-item instrument comprises three subscales: Compassion Satisfaction, which reflects the positive aspects of providing care; Burnout, which captures feelings of hopelessness and difficulty coping with work-related demands; and Secondary Traumatic Stress (STS), which measures symptoms arising from indirect exposure to clients' or patients' trauma (Zhang, 2021). ProQOL is one of the most widely used instruments for evaluating work-related stress and compassion fatigue and has demonstrated robust psychometric validity across a range of professional contexts (Hotchkiss & Wong, 2025). Its standardised format allows for reliable quantification of both the protective and risk factors associated with caregiving in healthcare and other helping professions.

Traumatic events (TEs) are defined as the number of distinct traumatic or stressful experiences an individual has encountered, either directly or indirectly (Feriante & Sharma, 2025). Among healthcare providers, a higher number of TEs represents cumulative exposure to distressing clinical events, which may contribute to the development of STS.

To assess this, a specific 10-item Likert scale was developed—the Traumatic Events in Healthcare Context (TEHC) questionnaire—designed to identify the most influential events contributing to STS and to evaluate stressors unique to healthcare professionals. The TEHC was created following an extensive review of the literature and semi-structured interviews (5-10 minutes), including doctors, nurses, psychologists, and psychiatrists, to determine the clinical scenarios most relevant to STS. The purpose of the TEHC questionnaire is to quantify the number, diversity, and perceived impact of stressful events and to identify which experiences have the greatest effect on STS among healthcare providers. The development process involved interviews with 20 healthcare practitioners and incorporation of the most frequently reported events identified both in practice and in existing literature. This approach ensured that

the instrument reflects real-world occupational exposures and is tailored to the unique stressors of the healthcare environment.

Data Analysis

A statistical analysis was performed with Jeffrey Amazing Statistics Program (JASP), which is an open-source statistical analysis package that is popular in academic studies. JASP was chosen due to its easy interface, friendly output tables and carrying out classical and advanced statistics tests. The descriptive statistics were calculated with the help of software, the reliability of the utilised instruments was evaluated with the help of Cronbach's alpha and independent samples t-tests, correlation analyses and ANOVA were performed. The quality of visualisations also belonged to JASP as they helped process the results better and made sure that the findings were represented in an easy-to-understand format.

Ethical Considerations

There were ethical standards at every level of the research process. Participation in the study was purely optional and all the participants were briefed about the objectives and the procedures before participation. Prior to data gathering, informed consent was gained from the participants by explaining the elaborated the objective of the study, the approximate time of research, the voluntary aspect of the research, and the right to withdraw from the study at any point prior to submission without any negative consequences (Dahal, 2024). The access and the completion of the questionnaire were restricted to those who reported their consent.

Furthermore, confidentiality and anonymity were maintained. The LimeSurvey survey tool was used to conduct the survey and the answers were obtained anonymously without any personal details like names, addresses, and institutional affiliations (Piispa, 2023). All data were kept safely in password-protected files, which the researcher was able to access only. This made the individual responses not traceable to the subjects, hence safeguarding their privacy.

Even though no sensitive personal identifiers were gathered, the participants were reminded that the survey was about rather distressing issues regarding stress, burnout, and trauma exposure. They were advised to respond to the questions that they were comfortable with and they were advised to seek professional assistance in case their participation was associated with discomfort. Additionally, the principle of nonmaleficence was observed with regard to research ethics practice because no participants could have suffered in the course of the research (Drolet et al., 2023).

Research Limitations

Although the study structure was suitable towards its objectives, there are a number of methodological constraints that need to be accepted. A cross-sectional design did not allow for the formation of a cause-and-effect relationship between occupational factors and STS. The findings provide a snapshot at a given time rather than the transformation throughout the careers of the participants (Chirico, 2023).

Furthermore, the research was based on self-reported information, which might have been subject to response bias due to social desirability or underreporting of stress as a result of stigma (Henderson et al., 2022). Moreover, the sampling method also has limitations in terms of the representativeness of the sample because individuals could choose to participate in the study at will, and only those who had the survey link could participate. This means that such findings may not be generalisable among all health care practitioners in France and Morocco.

Despite these limitations, the study design provided helpful data on the of STS in healthcare providers. Additionally, validated instruments, anonymous responses and diverse professional roles helped increase the quality and usefulness of the findings (Oldland et al., 2021).

Results

Reliability Analysis

Reliability analysis was conducted to assess the internal consistency of the instruments used in this study (Izah et al., 2023). Establishing reliability is essential to ensure that the measurement tools produce consistent, reproducible, and credible results. In psychological and healthcare research, a Cronbach’s alpha coefficient of .70 or higher is generally considered indicative of acceptable reliability. Adequate internal consistency is crucial, as unreliable measures may compromise the validity and interpretability of subsequent statistical analyses.

The Professional Quality of Life Scale (ProQOL), used to assess compassion satisfaction, burnout, and secondary traumatic stress, demonstrated good internal consistency in the present sample (Cronbach’s $\alpha = .833$). Similarly, the WHO-5 Well-Being Index (WHO-5) showed high reliability, with a Cronbach’s alpha of .883. These results indicate that both instruments displayed strong internal consistency and were suitable for assessing the targeted psychological constructs within the sample. In addition, the TEHC scale also demonstrated satisfactory reliability (Cronbach’s $\alpha = .800$), exceeding the commonly accepted threshold. This finding suggests that the TEHC provided a reliable measure within the context of this study.

Table 2.

Descriptives of ProQOL results

Subscale	% Low	% Average	% High	<i>M</i>	<i>SD</i>
Compassion Satisfaction	11.3	40.3	48.4	54.8	7.4
Burnout	54.1	45.9		18.43	5.5
STS	46.5	52.2	1.3	18.43	5.5

The distribution of participants according to the ProQOL scoring guidelines varied across the three subscales (see Table 2). Nearly half of the sample (48.4%) reported high levels of compassion satisfaction, while 40.3% demonstrated moderate levels. These findings suggest that the majority of medical practitioners derive a meaningful sense of satisfaction and fulfillment from their professional roles. Regarding burnout, more than half of the participants (54.1%) were classified within the low range, whereas the remaining 45.9% fell within the moderate range. Notably, none of the participants reported burnout levels within the high range, indicating that severe burnout was not prevalent in this sample. With respect to secondary traumatic stress (STS), 46.5% of participants reported low levels, 52.2% fell within the moderate range, and only 1.3% exhibited high levels of STS. Overall, these distributions suggest that although healthcare professionals in this study generally experience manageable levels of secondary traumatic stress and burnout, they also report substantial levels of compassion satisfaction, highlighting the presence of positive professional well-being within the sample (Table 2).

Overall, the mean scores across the three ProQOL subscales fell within the moderate range according to the scale's interpretive guidelines. Participants reported a mean score of 54.8 for compassion satisfaction ($SD = 7.4$), indicating a moderate to relatively high level of professional fulfillment derived from their work. For burnout, the mean score was 18.43 ($SD = 5.5$), reflecting a moderate level of burnout symptoms among participants. Similarly, the mean score for secondary traumatic stress (STS) was 18.43 ($SD = 5.5$), which also falls within the moderate range. According to the ProQOL interpretive framework, these average scores suggest that although healthcare providers are exposed to notable occupational stressors, the overall levels of burnout and secondary traumatic stress remain within a manageable, moderate range, rather than indicating a population at high risk of severe professional distress (Table 2).

Sociodemographic Associations

Table 3.

Differences by gender (t-test) for the ProQol and TEHC results

Subscale	Females		Males		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
CS	40.118	5.601	40.227	5.540	-.11	.46
Burnout	24.312	5.298	24.091	4.936	.23	.41
STS	25.430	7.287	25.432	7.251	-.01	.49
TEHC	24.291	9.384	26.057	9.149	-1.1	.23

The t-test is a fundamental inferential statistical method used to compare the mean scores of two groups and determine whether observed differences are statistically significant or likely due to chance. This analysis allows researchers to explore whether demographic variables, such as gender, are associated with variations in the primary psychological constructs examined in the study.

In the present analysis, independent samples t-tests were performed to compare STS scores between male and female healthcare providers. According to statistical conventions, a *p*-value greater than .05 indicates that no statistically significant difference exists between groups (Do-Thi & Do, 2022). The results revealed that the *p*-values for all examined variables exceeded the .05 threshold, indicating no statistically significant gender differences. Specifically, male and

female healthcare professionals reported comparable levels of compassion satisfaction, burnout, STS, and TEHC. These findings suggest that, within this sample, gender was not a significant factor influencing professional quality of life or trauma-related stress among healthcare providers (Table 3).

Age and Years of Practice relations with variables in study

Correlation analysis was conducted to examine the strength and direction of the relationships between the study variables (Janse et al., 2021). This statistical method is essential for identifying whether changes in one variable are associated with increases or decreases in another variable. By assessing these associations, correlation analysis helps reveal underlying patterns that may contribute to a better understanding of psychological and occupational outcomes. In the context of the present study, correlation analysis was used to explore the relationships among the main variables related to professional quality of life and well-being, providing insight into how different psychological constructs may interact within healthcare providers.

Table 4.

Correlations between the age and the years of experience and main study variables

	<i>Age</i>	<i>Years of experience</i>
<i>Compassion Satisfaction</i>	0.211*	0.183*
<i>Second. Traumatic Stress</i>	-0.034	-0.021
<i>Burnout</i>	-0.171*	-0.146
<i>TEHC</i>	-0.021	0.112
<i>WHOS</i>	0.276**	0.204*

* p < .05, ** p < .01

Correlation analyses were conducted to examine the relationships between STS and participants demographic variables, specifically age and years of professional experience. The results revealed weak, negative, and non-significant correlations between STS and age ($r = -.149, p = .077$), as well as between STS and years of practice ($r = -.091, p = .281$). These findings indicate that neither age or professional experience was significantly associated with levels of secondary traumatic stress among the participants. In other words, the data suggest that STS levels do not significantly vary according to age or years of experience in this sample. Consequently, it cannot be concluded that older healthcare providers experience higher or lower levels of STS compared to younger professionals. Similarly, greater professional experience does not appear to be associated with reduced or increased STS. Overall, these results suggest that the risk of experiencing STS may be relatively similar across different age groups and levels of professional experience within the studied population (Table 4).

Links Between STS and Well-Being

The analysis revealed a strong and statistically significant negative correlation between secondary traumatic stress (STS) and psychological well-being, as measured by the WHO-5 Well-Being Index ($r = -.570, p < .001$; see Table 5). This result indicates that higher levels of secondary traumatic stress are associated with lower levels of psychological well-being among healthcare professionals. In other words, as STS increases, overall well-being tends to decrease. These findings highlight the substantial psychological impact of secondary traumatic stress on healthcare providers, suggesting that exposure to patients' traumatic experiences may significantly undermine practitioners' mental well-being (Table 5).

Table 5.

Correlation of STS and Well-Being

Variable	CS		STS		B		TEHC		WHOS
CS	—								
STS	-0.118		—						
B	-0.552	***	0.594	***	—				
TEHC	-0.077		0.535	***	0.382	***	—		
WHOS	0.403	***	-0.453	***	-0.623	***	-0.323	***	—

* p < .05, ** p < .01, *** p < .001

Traumatic Events in healthcare context that has effects on CS, STS, B and Wellbeing

The correlations between different categories of traumatic events in the healthcare context and key professional outcomes are presented in Table 6. These outcomes include Compassion Satisfaction (CS), Secondary Traumatic Stress (STS), Burnout (B), and psychological well-being (WHO-5). The results reveal a consistent pattern of associations. Exposure to traumatic events in the healthcare context was significantly and positively correlated with both STS and burnout, indicating that higher exposure to such events is associated with increased trauma-related stress and professional exhaustion among healthcare providers. In contrast, traumatic events showed a negative association with psychological well-being, suggesting that greater exposure to these events is linked to lower levels of overall mental well-being. By comparison, the correlations between traumatic events and CS were generally weak or non-significant, indicating that exposure to these events does not appear to meaningfully enhance healthcare providers sense of professional fulfilment or meaning derived from their work. Overall, these findings suggest that

exposure to traumatic events in healthcare settings is primarily associated with adverse psychological and professional outcomes, rather than with increased professional satisfaction.

Table 6.

Correlations Between Stressful Events and Professional Outcomes (Compassion Satisfaction, Secondary Traumatic Stress, Burnout, and Wellbeing)

Variable	CS	STS	B	WHO5
Violence or aggression from patients.	0.077	0.170*	0.077	-0.052
Death of a patient (excluding suicide).	0.186*	0.322***	0.032	-0.120
Death of a patient by suicide.	-0.012	0.218**	0.175*	-0.046
Exposure to patients' traumatic stories (abuse, violence).	-0.040	0.410***	0.198*	-0.128
Feeling of helplessness (inability to help or relieve patients).	0.040	0.197*	0.148	-0.162
Lack of support system (insufficient supervision, isolation among colleagues).	-0.124	0.457***	0.396***	-0.303***
Moral conflicts / ethical dilemmas (confidentiality, prioritization of patients, involuntary treatments).	-0.131	0.332***	0.317***	-0.256**
Stigmatization (self-stigmatization, shame in asking for help, professional stigmatization).	-0.250	0.422***	0.359***	-0.312***
Professional burnout (high workload, institutional pressure).	-0.117	0.380***	0.277***	-0.244**
Lack of recognition (little appreciation from colleagues, hierarchy, or society).	-0.080	0.355***	0.334***	-0.292**

* $p < .05$, ** $p < .01$, *** $p < .001$

Among the most salient findings, lack of a support system including insufficient supervision and isolation among colleagues demonstrated the strongest associations with

negative professional outcomes. Specifically, it was positively correlated with STS (STS; $r = .457, p < .001$) and burnout ($r = .396, p < .001$), and negatively correlated with psychological well-being ($r = -.303, p < .001$). These results highlight the protective role of collegial and institutional support when such support is lacking, healthcare professionals become significantly more vulnerable to secondary trauma and emotional exhaustion.

Similarly, moral conflicts and ethical dilemmas showed robust associations with STS ($r = .332, p < .001$) and burnout ($r = .317, p < .001$), accompanied by a moderate negative correlation with well-being ($r = -.256, p < .001$). These findings suggest that unresolved ethical tensions such as patient confidentiality issues, prioritization of care, or involuntary treatments—constitute major contributors to psychological strain among healthcare workers.

Stigmatization, whether self-imposed or due to shame in seeking help, emerged as another strong predictor. It was positively correlated with STS ($r = .422, p < .001$) and burnout ($r = .359, p < .001$), and negatively correlated with well-being ($r = -.312, p < .001$). These results underscore that internalized stigma and reluctance to access psychological support amplify emotional distress, highlighting the need to normalize help-seeking behaviors in healthcare settings.

Both professional burnout and lack of recognition were consistently and significantly associated with adverse outcomes: STS ($r = .380 / .355, p < .001$), burnout ($r = .277 / .334, p < .001$), and lower well-being ($r = -.241 / -.292, p < .001$). These correlations indicate that high workload, institutional pressure, and insufficient appreciation from colleagues or supervisors act as chronic stressors, depleting emotional resources and negatively affecting both mental health and job engagement.

Taken together, these findings indicate that organisational and interpersonal stressors including poor support, stigma, moral distress, and lack of recognition have a more pronounced impact on mental health than isolated clinical stressors such as exposure to patient death or

trauma. The consistent pattern of significant correlations suggests a cumulative psychosocial burden, which fosters STS and burnout while eroding subjective well-being.

Table 7.

Frequencies for the most impactful Traumatic Events in healthcare context

Most impactful events	Frequency	Percent	Valid Percent	Cumulative Percent
Violence or aggression from patients	12	7.54	7.84	7.84
Death of a patient (non-suicide)	12	7.54	7.84	15.69
Death of a patient by suicide	6	3.77	3.92	19.61
Exposure to patients' traumatic stories	8	5.03	5.23	24.84
Feeling of helplessness	18	11.32	11.76	36.60
Lack of support system	7	4.40	4.57	41.18
Moral conflicts / ethical dilemmas	13	8.17	8.50	49.67
Stigmatization (self-stigma...)	2	1.25	1.31	50.98
Professional burnout	42	26.41	27.45	78.43
Lack of recognition	28	17.61	18.30	96.73
Missing	6	3.77		
Total	159	100.000		

The distribution of the most impactful stressful events experienced by participants is presented in Table 7. Out of a total of 159 valid responses, professional burnout characterised by high workload and institutional pressure was the most frequently cited stressful event, reported by 26.4% of participants, representing 27.45% of valid cases. This indicates that professional burnout was perceived as the most distressing experience among the sample.

The second most common impactful event was lack of recognition, including little appreciation from colleagues, management, or society, reported by 17.6% of participants. This was followed by feelings of helplessness or inability to adequately help or relieve patients (11.3%) and moral conflicts/ethical dilemmas such as issues of confidentiality, patient prioritizations, or involuntary treatments (8.2%).

In contrast, events such as the death of a patient by suicide (3.9%) and stigmatisation, including self-stigma, shame in seeking help, or professional stigma (1.3%), were the least frequently identified as most impactful for healthcare providers.

The relatively high cumulative percentage for professional burnout (78.4%) highlights a strong concentration of perceived impact around this category of stressors, whereas events such as stigmatisation or patient suicide were rarely mentioned, suggesting their emotional weight or frequency in daily professional life is comparatively lower.

Finally, the presence of missing data (3.8%) remained within acceptable limits and does not compromise the overall validity of the results, supporting the reliability of the findings presented in Table 7.

Discussion

The present study examined the prevalence and correlates of Secondary Traumatic Stress (STS) among healthcare providers working in France and Morocco, and explored its relationship with burnout, compassion satisfaction (CS), and psychological wellbeing. In addition, the study investigated the role of specific occupational and emotional stressors through the Traumatic Events in Healthcare Context (TEHC) questionnaire. By integrating individual psychological outcomes with contextual occupational factors, this study contributes to the growing body of literature highlighting the multidimensional nature of emotional strain experienced by healthcare professionals. Overall, the findings indicate that healthcare providers reported moderate levels of STS and burnout, alongside moderate to high levels of compassion satisfaction. Nearly half of the participants (48.4%) reported high levels of CS, while STS and burnout were predominantly distributed within low to moderate ranges. These results suggest that, despite frequent exposure to patient suffering and emotionally demanding clinical situations, healthcare providers generally maintain a sense of professional meaning and fulfillment in their work. This pattern aligns with previous research indicating that compassion satisfaction can act as a protective psychological factor, buffering the impact of occupational stress and trauma exposure (Caponnetto et al., 2022; Kartsonaki et al., 2023). In healthcare settings, deriving meaning from helping others, witnessing patient recovery, and contributing to patient wellbeing may counterbalance the emotional burden associated with caregiving. At the same time, the presence of moderate levels of STS and burnout highlights the inherently demanding emotional nature of healthcare professions. Even when distress levels remain moderate, repeated exposure to patients' trauma may accumulate over time and negatively affect

emotional functioning, professional engagement, and quality of care (Leung et al., 2023). Consequently, the coexistence of relatively high compassion satisfaction with moderate levels of distress illustrates the paradoxical nature of caregiving professions, which can simultaneously generate profound professional reward and substantial emotional strain.

The study did not identify significant differences in STS, burnout, or compassion satisfaction based on gender, age, or years of professional experience. These findings suggest that secondary trauma constitutes a shared occupational risk across demographic groups rather than being limited to specific categories of professionals. This observation is consistent with previous studies reporting comparable levels of STS across genders among healthcare providers (Chaudhry et al., 2022), although it contrasts with research suggesting greater vulnerability among women (Glomazić & Vidović, 2024). Similarly, the absence of a significant relationship between years of professional experience and STS supports the idea that prolonged exposure to healthcare environments does not necessarily protect professionals from trauma-related stress (Marković & Živanović, 2022). Taken together, these results suggest that contextual and institutional conditions may be more influential than individual characteristics in shaping psychological outcomes among healthcare workers. In other words, the emotional impact of healthcare work appears to be determined primarily by the context in which professionals operate rather than by demographic variables alone.

Correlation analyses revealed patterns consistent with both the Compassion Fatigue model (Figley, 1995) and the Job Demands–Resources (JD–R) model (Bakker & Demerouti, 2007). As expected, STS and burnout were strongly and negatively associated with psychological wellbeing, indicating that increased emotional strain is closely linked to reduced vitality and mental health. More specifically, STS showed a significant negative correlation with wellbeing ($r = -.453, p < .001$), while burnout demonstrated an even stronger negative association ($r = -.623, p < .001$). These findings confirm that both secondary trauma and chronic occupational exhaustion contribute to psychological deterioration among healthcare professionals. Conversely, compassion satisfaction was positively correlated with wellbeing ($r = .403, p < .001$),

highlighting its role as a restorative psychological resource. From a theoretical perspective, this suggests that professional meaning and perceived effectiveness in helping others may partially replenish the emotional resources depleted by trauma exposure and work-related stress. In addition, the strong positive association between STS and burnout ($r = .594, p < .001$) confirms that these constructs represent distinct but interrelated dimensions of professional distress. While STS primarily reflects empathy-related stress resulting from indirect exposure to patients' traumatic experiences, burnout reflects exhaustion arising from chronic organisational demands such as excessive workload or institutional pressure. Together, these dimensions form the core components of compassion fatigue, which frequently coexist in healthcare environments.

One of the most significant findings of the present study emerged from the analysis of the TEHC questionnaire. Organisational and interpersonal stressors, rather than direct clinical exposure to traumatic events, were the strongest predictors of STS, burnout, and reduced psychological wellbeing. The stressors most strongly associated with distress included lack of support systems, moral conflicts and ethical dilemmas, stigmatisation related to help-seeking, and lack of professional recognition. Among these factors, lack of support showed the strongest correlations with both STS and burnout, while also demonstrating a significant negative association with psychological wellbeing. These findings indicate that the psychosocial and institutional climate of healthcare settings plays a central role in shaping emotional distress among professionals. When healthcare workers experience isolation, moral distress, or a lack of acknowledgment, the risk of secondary traumatic stress increases substantially. Conversely, supportive organisational structures such as regular supervision, peer collaboration, and recognition of professional efforts may function as protective buffers against the emotional impact of patient care. Interestingly, direct patient-related stressors, such as exposure to traumatic narratives or patient death, showed weaker associations once systemic variables were considered. This suggests that the context in which trauma exposure occurs including perceived support, workload, and institutional recognition may be more influential than the exposure itself.

Similar conclusions have been drawn in previous studies highlighting the mediating role of organisational culture and leadership in compassion fatigue (Sutton et al., 2022; Brewer, 2021).

The frequency analysis of the most impactful events further supports the central role of organisational factors in emotional strain. Professional burnout (26.4%) and lack of recognition (17.6%) were the most frequently reported sources of distress, followed by feelings of helplessness (11.3%) and moral conflicts (8.2%). These findings reinforce the notion that everyday institutional stressors, rather than rare critical incidents, constitute the primary sources of emotional burden for healthcare professionals. While exposure to suffering and death is inherent to healthcare practice, systemic issues such as excessive workload, lack of acknowledgment, and limited organisational support appear to have a more persistent psychological impact. These results align with previous research suggesting that STS and burnout often arise from chronic organisational strain, including inadequate staffing, poor communication, and hierarchical pressure (Orrù et al., 2021). Similarly, Ogińska-Bulik et al. (2021) reported that stigmatisation and the absence of open dialogue about psychological distress further exacerbate secondary trauma among healthcare workers. Collectively, these findings support the view that STS should be addressed as a structural and organisational issue rather than solely as an individual psychological problem.

From a theoretical perspective, the findings of this study provide empirical support for the Compassion Fatigue framework, which conceptualises STS, burnout, and compassion satisfaction as interconnected components of professional quality of life. Within this framework, compassion satisfaction represents a key psychological resource capable of counterbalancing the harmful effects of secondary trauma and chronic occupational stress. At the same time, the results are consistent with the Job Demands–Resources (JD–R) model, which emphasizes the role of job resources such as social support, supervision, and recognition in mitigating the negative effects of job demands. In healthcare contexts, the presence or absence of these resources appears to significantly influence professionals’ vulnerability to emotional exhaustion and secondary trauma.

The findings of this study highlight the need for systemic interventions aimed at improving the psychosocial environment within healthcare institutions. Preventive strategies should extend beyond individual stress management approaches, such as mindfulness or personal coping techniques, and instead address organisational structures and workplace culture. Healthcare institutions should implement structured supervision systems, psychological debriefing opportunities, peer-support groups, and formal mechanisms for recognising the emotional labor involved in caregiving. In addition, efforts to reduce stigma surrounding mental health support and to promote mental health literacy within healthcare organisations are essential. Organisational policies should also address workload management, equitable distribution of responsibilities, and clear guidelines for handling ethical dilemmas in clinical practice (Chatham et al., 2023). Complementing these structural changes with individual-level interventions, such as resilience training, emotional regulation programs, and stress-management workshops, may further strengthen healthcare professionals' capacity to cope with occupational demands (Chermont, 2025).

While this study provides valuable insights into secondary traumatic stress among healthcare professionals, several limitations should be considered when interpreting the findings. First, the cross-sectional design of the study prevents causal inferences. Although significant associations were observed between organisational stressors and psychological outcomes, it remains unclear whether these stressors directly lead to distress or whether individuals experiencing emotional exhaustion perceive their work environment more negatively. Future research employing longitudinal or prospective designs would allow for a better understanding of the temporal dynamics underlying the development of STS and burnout. Second, the study relied exclusively on self-report measures, which may introduce subjectivity and social desirability bias. Healthcare professionals may underreport psychological distress due to stigma or professional expectations. Furthermore, the conceptual proximity between constructs such as burnout, compassion satisfaction, and STS may lead to partial overlap across scales. Future studies could benefit from

combining quantitative questionnaires with qualitative approaches, such as interviews or observational methods, to capture a more comprehensive view of professionals' experiences. Third, the use of convenience sampling limits the generalisability of the findings. Although the sample size ($N = 159$) was adequate for correlational analyses, it restricts the statistical power of subgroup comparisons. Additionally, the unequal distribution of professions within the sample and the exclusion of other healthcare roles, such as administrative or technical staff, may limit the applicability of the results to the broader healthcare workforce. The inclusion of participants from both France and Morocco provides valuable cultural diversity; however, cross-cultural differences were not explored in depth. Institutional structures, healthcare policies, and resource availability may significantly influence stress perception and access to support. Future studies adopting comparative or multi-site designs could help clarify how different healthcare systems shape the experience of secondary trauma. Finally, the TEHC questionnaire, although demonstrating good internal consistency ($\alpha = .800$), remains a newly developed instrument. Additional research is needed to further examine its psychometric properties, including factor structure, construct validity, and measurement invariance across populations.

Future studies should also consider incorporating objective indicators of stress, such as sleep quality, absenteeism, or physiological markers (e.g., cortisol levels), in order to provide a more comprehensive and multidimensional assessment of compassion fatigue. Despite these limitations, the present study contributes to the growing literature on secondary traumatic stress by highlighting the central role of organisational and relational factors in shaping healthcare professionals' psychological wellbeing. The findings indicate that lack of support, moral conflicts, stigmatisation, and lack of recognition represent key sources of emotional strain in healthcare settings. Addressing STS therefore requires not only individual coping strategies but also systemic organisational reforms aimed at fostering supportive, collaborative, and psychologically safe work environments. Strengthening institutional support systems, promoting open dialogue about mental health, and recognising the emotional demands of caregiving are essential steps toward protecting the wellbeing of healthcare professionals.

Ultimately, safeguarding the psychological health of healthcare workers is crucial not only for their personal wellbeing but also for the sustainability and quality of patient care. Future research adopting longitudinal, mixed-method, and cross-cultural approaches will be essential to deepen understanding of the mechanisms underlying STS and to evaluate the effectiveness of organisational interventions designed to promote resilience and professional wellbeing.

References

- Alshammari, B., Alanazi, N. F., Kreedi, F., Alshammari, F., Alkubati, S. A., Alrasheeday, A., Madkhali, N., Alshara, A., Bakthavatchalam, V., Al-Masaeed, M., Alshammari, S. K., Alshammari, N. K., Ansari, M., Hussain, A., & Al-Sadi, A. K. (2024). Exposure to secondary traumatic stress and its related factors among emergency nurses in Saudi Arabia: A mixed method study. *BMC Nursing, 23*(1), 337.
- Amberson, T., & Quarry, C. (2025). Understanding Traumatic Stress in Emergency Nurses: A Systematic Review. *Journal of Advanced Nursing*.
- Bakker, A. B., & Demerouti, E. (2007). The job demands–resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309–328.
- Boatswain, B. (2023). Addressing Secondary Traumatic Stress Among Nurses: A Brief Unit-Based Group Program. *Group, 47*(12), 29–41.
- Brewer, K. C. (2021). Institutional betrayal in nursing: A concept analysis. *Nursing Ethics, 28*(6), 1081–1089.
- Caponnetto, P., Platania, S., Maglia, M., Morando, M., Gruttadauria, S. V., Auditore, R., Ledda, C., Rapisarda, V., & Santisi, G. (2022). Health Occupation and Job Satisfaction: The Impact of Psychological Capital in the Management of Clinical Psychological Stressors of Healthcare Workers in the COVID-19 Era. *International Journal of Environmental Research and Public Health, 19*(10), 6134.

- Chatham, A. A., Petruzzi, L. J., Patel, S., Brode, W. M., Cook, R., Garza, B., Garay, R., Mercer, T., & Valdez, C. R. (2023). Structural Factors Contributing to Compassion Fatigue, Burnout, and Secondary Traumatic Stress Among Hospital-Based Healthcare Professionals During the COVID-19 Pandemic. *Qualitative Health Research, 34*, 362–373.
- Chaudhry, M., Sharif, H., Shah, S. M., Javed, S., & Mangrio, S. (2022). Assessment of Secondary Traumatic Stress in Health Care Professionals Working in Tertiary Care Hospitals of Islamabad. *Pakistan Journal Of Health Sciences, 3*(6), 36–40.
- Chermont, A. C. (2025). *Mindfulness and Self-Care Training for Mental-Health Providers*. Alliant International University.
- Chirico, F. (2023). Cross-sectional studies in occupational health research: An overview of strengths and limitations. *G Ital Psicol Med Lav, 3*(3), 86–93.
- Comparcini, D., Simonetti, V., Totaro, M., Apicella, A., Galli, F., Toccaceli, A., Di Lorenzo, A., Tafuri, S., Cicolini, G., & Tomietto, M. (2025). Impact of Traumatic Stress on Nurses' Work Ability, Job Satisfaction, Turnover and Intention to Leave: A Cross-Sectional Study. *Journal of Advanced Nursing*.
- Cuthill, L. S. (2025). *Post-Trauma Debriefing For The Prevention Of Secondary Stress: A Quality Improvement Project*. Montana State University.
- Dahal, B. (2024). Participants' Right to Withdraw from Research: Researchers' Lived Experiences on Ethics of Withdrawal. *Journal of Academic Ethics, 22*(1), 191–209.
- Darko, Y. T. O. (2024). *Secondary Traumatic Stress, Compassion Fatigue, Occupational Burnout and Well-Being*. Regent University.

- Denman, D. C., Williams, A., & Cancio, L. (2025). 41 The Prevalence of Secondary Traumatic Stress in Burn Care Clinicians. *Journal of Burn Care & Research: Official Publication of the American Burn Association*, 46, 33–33.
- Do-Thi, P., & Do, I. (2022). The Full Process in Modeling and Quantitative Methods by Using SPSS. In S. A. Abdul Karim (Ed.), *Intelligent Systems Modeling and Simulation II: Machine Learning, Neural Networks, Efficient Numerical Algorithm and Statistical Methods* (pp. 597–626). Springer International Publishing.
- Drolet, M.-J., Rose-Derouin, E., Leblanc, J.-C., Ruest, M., & Williams-Jones, B. (2023). Ethical Issues in Research: Perceptions of Researchers, Research Ethics Board Members and Research Ethics Experts. *Journal of Academic Ethics*, 21(2), 269–292.
- Elkefi, S., & Asan, O. (2023). Perceived Patient Workload and Its Impact on Outcomes During New Cancer Patient Visits: Analysis of a Convenience Sample. *JMIR Human Factors*, 10(1).
- Feriante, J., & Sharma, N. P. (2025). Acute and Chronic Mental Health Trauma. StatPearls Publishing.
- Flake, J. K., Davidson, I. J. W., & Octavia, P. J. (2022). Construct validity and the validity of replication studies: A systematic review. *APA PsycNet*, 77(4), 576–588.
- Ghanad, A. (2023). An Overview of Quantitative Research Methods. *International Journal Of Multidisciplinary Research And Analysis*, 6(8), 3794–3803.
- Glomazić, H., & Vidović, S. (2024). Gender Differences and Secondary Traumatization in Helping Professions. *Original Scientific Paper*.
- Golzar, J., Noor, S., & Tajik, O. (2022). Convenience Sampling. *International Journal of Education & Language Studies*, 1(2), 72–77.

- Henderson, C., Evans-Lacko, S., Flach, C., & Thornicroft, G. (2022). Responses to Mental Health Stigma Questions: The Importance of Social Desirability and Data Collection Method. *The Canadian Journal of Psychiatry*, 57(3), 152–160.
- Hofer, K. S. (2025). *The Impact of Secondary Traumatic Stress on Helping Professionals: A Mixed Methods Study of First Responders, Nurses, and Mental Health Clinicians*. The Chicago School of Professional Psychology.
- Hotchkiss, J. T., & Wong, C. M. Y. (2025). Truth on ProQOL and Burnout Assessment—Development and Intercultural Validation of the Brief ProQOL-12 from the Professional Quality of Life, Version 5. *American Journal of Hospice and Palliative Medicine*, 42(4), 334–354.
- Hu, M., Zhang, H., Wu, C., Li, L., Liang, X., Zhang, Y., & Lang, H. (2024). Relationship between moral resilience and secondary traumatic stress among ICU nurses: A cross-sectional study. *Nursing in Critical Care*, 29(6), 1363–1372.
- İlhan, B., & Küpeli, İ. (2022). Secondary traumatic stress, anxiety, and depression among emergency healthcare workers in the middle of the COVID-19 outbreak: A cross-sectional study. *The American Journal of Emergency Medicine*, 52, 99–104.
- Izah, S. C., Sylva, L., & Hait, M. (2023). Cronbach's Alpha: A Cornerstone in Ensuring Reliability and Validity in Environmental Health Assessment. *ES Energy & Environment*, 23, 1057.

- Janse, R. J., Hoekstra, T., Jager, K. J., Zoccali, C., Tripepi, G., Dekker, F. W., & van Diepen, M. (2021). Conducting correlation analysis: Important limitations and pitfalls. *Clinical Kidney Journal*, 14(11), 2332–2337.
- Kartsonaki, M. G., Georgopoulos, D., Kondili, E., Nieri, A. S., Alevizaki, A., Nyktari, V., & Papaioannou, A. (2023). Prevalence and factors associated with compassion fatigue, compassion satisfaction, burnout in health professionals. *Nursing in Critical Care*, 28(2), 225–235.
- Kartsonaki, M. G., Georgopoulos, D., Kondili, E., Nieri, A. S., Alevizaki, A., Nyktari, V., & Papaioannou, A. (2023). Prevalence and factors associated with compassion fatigue, compassion satisfaction, and burnout in health professionals. *Nursing in Critical Care*, 28(2), 225–235. <https://doi.org/10.1111/nicc.12755>
- Kendall-Tackett, K., & Beck, C. T. (2022). Secondary Traumatic Stress and Moral Injury in Maternity Care Providers: A Narrative and Exploratory Review. *Frontiers in Global Women's Health*, 3.
- La Torre, G., Raffone, A., Peruzzo, M., Calabrese, L., Cocchiara, R. A., D'Egidio, V., Leggieri, P. F., Dorelli, B., Zaffina, S., Mannocci, A., & YOMIN Collaborative Group. (2020). Yoga and Mindfulness as a Tool for Influencing Affectivity, Anxiety, Mental Health, and Stress among Healthcare Workers: Results of a Single-Arm Clinical Trial. *Journal of Clinical Medicine*, 9(4), 1037.
- Leung, T., Schmidt, F., & Mushquash, C. (2023). A personal history of trauma and experience of secondary traumatic stress, vicarious trauma, and burnout in mental health workers: A

systematic literature review. *Psychological Trauma: Theory, Research, Practice, and Policy*, 15(Suppl 2), S213–S221.

Lykins, A. B., Seroka, N. W., Mayor, M., Seng, S., Higgins, J. T., & Okoli, C. T. C. (2024). Compassion Satisfaction, Burnout, and Secondary Traumatic Stress Among Nursing Staff at an Academic Medical Center: A Cross-Sectional Analysis. *Journal of the American Psychiatric Nurses Association*, 30(1), 63–73.

Maier, C., Thatcher, J. B., Grover, V., & Dwivedi, Y. K. (2023). Cross-sectional research: A critical perspective, use cases, and recommendations for IS research. *International Journal of Information Management*, 70, 102625.

Marciniak-Nuqui, Z., Cabling, M. L., & Romanelli, R. J. (2024). Culture of presenteeism: Emergent perspectives from an NHS-workforce convenience sample. *Occupational Medicine*, 74(2), 167–171.

Marković, M. V., & Živanović, M. (2022). Coping with Secondary Traumatic Stress. *International Journal of Environmental Research and Public Health*, 19(19), 12881.

Meyerson, J., Gelkopf, M., Eli, I., & Uziel, N. (2022). Stress Coping Strategies, Burnout, Secondary Traumatic Stress, and Compassion Satisfaction Amongst Israeli Dentists: A Cross-sectional Study. *International Dental Journal*, 72(4), 476–483.

Miller, L., & Pehlke, S. (2022). Evaluating Burnout, Secondary Traumatic Stress, and Sleep Disturbances in Healthcare Professionals During a Global Pandemic. *Journal of Wellness*, 4(1).

- Molnar, B. E., et al. (2020). Advancing research on STS. *Journal of Interpersonal Violence*, 35(7–8), 1536–1553.
- Moreno-Jiménez, J. E., Blanco-Donoso, L. M., Chico-Fernández, M., Belda Hofheinz, S., Moreno-Jiménez, B., & Garrosa, E. (2021). The Job Demands and Resources Related to COVID-19 in Predicting Emotional Exhaustion and Secondary Traumatic Stress Among Health Professionals in Spain. *Frontiers in Psychology*, 12.
- Moreno-Jiménez, J. E., Demerouti, E., Blanco-Donoso, L. M., Chico-Fernández, M., Iglesias-Bouzas, M. I., & Garrosa, E. (2023). Passionate healthcare workers in demanding intensive care units: Its relationship with daily exhaustion, secondary traumatic stress, empathy, and self-compassion. *Current Psychology*, 42(33), 29387–29402.
- Newman, A., Bavik, Y. L., Mount, M., & Shao, B. (2021). Data Collection via Online Platforms: Challenges and Recommendations for Future Research. *Applied Psychology*, 70(3), 1380–1402.
- Nylén-Eriksen, M., Bjørnnes, A. K., Hafstad, H., Lie, I., Grov, E. K., & Lara-Cabrera, M. L. (2022). Validating the Five-Item World Health Organization Well-Being Index. *International Journal of Environmental Research and Public Health*, 19(18), 11489.
- Ogińska-Bulik, N., Gurowiec, P. J., Michalska, P., & Kędra, E. (2021). Prevalence and predictors of secondary traumatic stress symptoms in health care professionals working with trauma victims: A cross-sectional study. *PLOS ONE*, 16(2), e0247596.

- Oldland, E., Hutchinson, A. M., Redley, B., Mohebbi, M., & Botti, M. (2021). Evaluation of the validity and reliability of the Nurses' Responsibility in Healthcare Quality Questionnaire: An instrument design study. *Nursing & Health Sciences*, 23(2), 525–537.
- Orrù, G., Marzetti, F., Conversano, C., Vagheggini, G., Miccoli, M., Ciacchini, R., Panait, E., & Gemignani, A. (2021). Secondary Traumatic Stress and Burnout in Healthcare Workers during COVID-19 Outbreak. *International Journal of Environmental Research and Public Health*, 18(1), 337.
- Öztürk, G., & Barutcu, C. D. (2022). Determination of Secondary Traumatic Stress Levels of Healthcare Workers. *İstanbul Gelişim Üniversitesi Sağlık Bilimleri Dergisi*.
- Park, H., Kim, H., & Kim, H. (2025). A Scoping Review of Secondary Traumatic Stress in Nurses Working in the Emergency Department or Trauma Care Settings. *Journal of Advanced Nursing*, 81(9), 5304–5314.
- Piispa, E. (2023). *Extended development of a survey tool using LimeSurvey platform*. Metropolia University of Applied Sciences.
- Powell, M. A. (2024). *Understanding the Experiences and Support Needs of Nurses During and After the COVID-19 Pandemic*. Duke University.
- Proudfoot, B. (2025). A study of secondary traumatic stress in health care professionals in long-term care. *Doctor of Social Work Capstone Projects*.

- Qian, J., Wang, W., Sun, S., Liu, L., Sun, Y., & Yu, X. (2022). Interventions to reduce post-traumatic stress disorder symptoms in health care professionals from 2011 to 2021: A scoping review. *BMJ Open*, *12*(1).
- Shalabi, K. M., Alshraif, Z. A., Ismail, R. I., Almubarak, K., Mohmoud, N., & Shaik, S. A. (2023). Secondary Traumatic Stress Disorder Among Physiotherapists Working in High Morbidity Departments: A Cross-Sectional Study. *Journal of Multidisciplinary Healthcare*, *16*, 3287–3297.
- Sinnathamby, A., Ong, Y. T., Lim, S. X., Hiew, A. W. H., Ng, S. Y., Chee, J. H., Tan, M. K. M., Abdul Hamid, N. A. B., Ong, S. Y. K., & Krishna, L. K. R. (2025). Concepts of Suffering at the End of Life Amongst Emergency, Palliative Care and Geriatric Medicine Physicians in Malaysia. *American Journal of Hospice and Palliative Medicine*.
- Smith, M. E. (2024). *How Baccalaureate Nursing Students Experience and Cope with Secondary Traumatic Stress*. Western Connecticut State University.
- Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Prioritizing the Mental Health and Well-Being of Healthcare Workers: An Urgent Global Public Health Priority. *Frontiers in Public Health*, *9*.
- Sutton, L., Rowe, S., Hammerton, G., & Billings, J. (2022). The contribution of organisational factors to vicarious trauma in mental health professionals: A systematic review and narrative synthesis. *European Journal of Psychotraumatology*, *13*(1), 2022278.

- Taris, T. W., Kessler, S. R., & Kelloway, E. K. (2021). Strategies addressing the limitations of cross-sectional designs in occupational health psychology: What they are good for (and what not). *Work & Stress*, 35(1), 1–5.
- Taylor, L. S. (2021). *Secondary Traumatic Stress and Countertransference in Survivor Therapists: The Role of Empathy and Differentiation of Self*. University of Missouri.
- Tracy, S., & Zadinsky, J. (2025). Early detection and intervention in secondary traumatic stress among healthcare professionals.
- Ulaş, S., & Seçer, İ. (2025). Psychological effects of secondary traumatic stress among healthcare providers.
- Van Quaquebeke, N., Salem, M., van Dijke, M., & Wenzel, R. (2022). Conducting organizational survey and experimental research online: From convenient to ambitious in study designs, recruiting, and data quality. *Organizational Psychology Review*, 12(3), 268–305.
- Woods, L. (2024). *A Phenomenological Study of Mental Health Clinicians and the Onset of Secondary Traumatic Stress*. National University.
- Zacharias, B. S., & Upendra, S. (2024). Healing the healers: A systematic review on the burden of secondary traumatic stress among healthcare providers. *Journal of Education and Health Promotion*, 13(1), 466.
- Zhang, Y. (2021). *Comparative Analysis of Validation of Compassion Fatigue Short Scale and Professional Quality of Life Scale (ProQOL) in China Under COVID-19 Pandemic*. ISCTE - Instituto Universitario de Lisboa.

- Alshammari, B., Alanazi, N. F., Kreed, F., Alshammari, F., Alkubati, S. A., Alrasheeday, A., Madkhali, N., Alshara, A., Bakthavatchalam, V., Al-Masaeed, M., Alshammari, S. K., Alshammari, N. K., Ansari, M., Hussain, A., & Al-Sadi, A. K. (2024). Exposure to secondary traumatic stress and its related factors among emergency nurses in Saudi Arabia: A mixed method study. *BMC Nursing*, 23(1), 337.
- Amberson, T., & Quarry, C. (2025). Understanding traumatic stress in emergency nurses: A systematic review. *Journal of Advanced Nursing*.
- Bakker, A. B., & Demerouti, E. (2007). The job demands–resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328.
- Boatswain, B. (2023). Addressing secondary traumatic stress among nurses: A brief unit-based group program. *Group*, 47(12), 29–41.
- Brewer, K. C. (2021). Institutional betrayal in nursing: A concept analysis. *Nursing Ethics*, 28(6), 1081–1089.
- Caponnetto, P., Platania, S., Maglia, M., Morando, M., Gruttadauria, S. V., Auditore, R., Ledda, C., Rapisarda, V., & Santisi, G. (2022). Health occupation and job satisfaction: The impact of psychological capital in the management of clinical psychological stressors of healthcare workers in the COVID-19 era. *International Journal of Environmental Research and Public Health*, 19(10), 6134.
- Chatham, A. A., Petrucci, L. J., Patel, S., Brode, W. M., Cook, R., Garza, B., Garay, R., Mercer, T., & Valdez, C. R. (2023). Structural factors contributing to compassion fatigue, burnout,

- and secondary traumatic stress among hospital-based healthcare professionals during the COVID-19 pandemic. *Qualitative Health Research*, 34, 362–373.
- Chaudhry, M., Sharif, H., Shah, S. M., Javed, S., & Mangrio, S. (2022). Assessment of secondary traumatic stress in healthcare professionals working in tertiary care hospitals of Islamabad. *Pakistan Journal of Health Sciences*, 3(6), 36–40.
- Chermont, A. C. (2025). Mindfulness and self-care training for mental-health providers (Doctoral dissertation, Alliant International University).
- Chirico, F. (2023). Cross-sectional studies in occupational health research: An overview of strengths and limitations. *Giornale Italiano di Medicina del Lavoro*, 3(3), 86–93.
- Comparcini, D., Simonetti, V., Totaro, M., Apicella, A., Galli, F., Toccaceli, A., Di Lorenzo, A., Tafuri, S., Cicolini, G., & Tomietto, M. (2025). Impact of traumatic stress on nurses' work ability, job satisfaction, turnover and intention to leave: A cross-sectional study. *Journal of Advanced Nursing*.
- Cuthill, L. S. (2025). Post-trauma debriefing for the prevention of secondary stress: A quality improvement project (Master's thesis, Montana State University).
- Dahal, B. (2024). Participants' right to withdraw from research: Researchers' lived experiences on ethics of withdrawal. *Journal of Academic Ethics*, 22(1), 191–209.
- Darko, Y. T. O. (2024). Secondary traumatic stress, compassion fatigue, occupational burnout and well-being (Doctoral dissertation, Regent University).

- Denman, D. C., Williams, A., & Cancio, L. (2025). The prevalence of secondary traumatic stress in burn care clinicians. *Journal of Burn Care & Research*, 46, 33.
- Do-Thi, P., & Do, I. (2022). The full process in modeling and quantitative methods by using SPSS. In S. A. Abdul Karim (Ed.), *Intelligent systems modeling and simulation II* (pp. 597–626). Springer.
- Drolet, M.-J., Rose-Derouin, E., Leblanc, J.-C., Ruest, M., & Williams-Jones, B. (2023). Ethical issues in research: Perceptions of researchers, research ethics board members and research ethics experts. *Journal of Academic Ethics*, 21(2), 269–292.
- Elkefi, S., & Asan, O. (2023). Perceived patient workload and its impact on outcomes during new cancer patient visits: Analysis of a convenience sample. *JMIR Human Factors*, 10(1).
- Feriante, J., & Sharma, N. P. (2025). *Acute and chronic mental health trauma*. StatPearls Publishing.
- Flake, J. K., Davidson, I. J. W., & Octavia, P. J. (2022). Construct validity and the validity of replication studies: A systematic review. *Psychological Bulletin*, 77(4), 576–588.
- Ghanad, A. (2023). An overview of quantitative research methods. *International Journal of Multidisciplinary Research and Analysis*, 6(8), 3794–3803.
- Glomazić, H., & Vidović, S. (2024). Gender differences and secondary traumatization in helping professions.

- Golzar, J., Noor, S., & Tajik, O. (2022). Convenience sampling. *International Journal of Education & Language Studies*, 1(2), 72–77.
- Henderson, C., Evans-Lacko, S., Flach, C., & Thornicroft, G. (2022). Responses to mental health stigma questions: The importance of social desirability and data collection method. *The Canadian Journal of Psychiatry*, 57(3), 152–160.
- Hofer, K. S. (2025). The impact of secondary traumatic stress on helping professionals: A mixed methods study (Doctoral dissertation, The Chicago School of Professional Psychology).
- Hotchkiss, J. T., & Wong, C. M. Y. (2025). Development and intercultural validation of the brief ProQOL-12. *American Journal of Hospice and Palliative Medicine*, 42(4), 334–354.
- Hu, M., Zhang, H., Wu, C., Li, L., Liang, X., Zhang, Y., & Lang, H. (2024). Relationship between moral resilience and secondary traumatic stress among ICU nurses: A cross-sectional study. *Nursing in Critical Care*, 29(6), 1363–1372.
- İlhan, B., & Küpeli, İ. (2022). Secondary traumatic stress, anxiety, and depression among emergency healthcare workers during COVID-19. *The American Journal of Emergency Medicine*, 52, 99–104.
- Izah, S. C., Sylva, L., & Hait, M. (2023). Cronbach's alpha: A cornerstone in ensuring reliability and validity. *ES Energy & Environment*, 23, 1057.
- Janse, R. J., Hoekstra, T., Jager, K. J., Zoccali, C., Tripepi, G., Dekker, F. W., & van Diepen, M. (2021). Conducting correlation analysis: Important limitations and pitfalls. *Clinical Kidney Journal*, 14(11), 2332–2337.

- Kartsonaki, M. G., Georgopoulos, D., Kondili, E., Nieri, A. S., Alevizaki, A., Nyktari, V., & Papaioannou, A. (2023). Prevalence and factors associated with compassion fatigue, compassion satisfaction, and burnout in health professionals. *Nursing in Critical Care*, 28(2), 225–235. <https://doi.org/10.1111/nicc.12755>
- Kendall-Tackett, K., & Beck, C. T. (2022). Secondary traumatic stress and moral injury in maternity care providers: A narrative review. *Frontiers in Global Women's Health*, 3.
- La Torre, G., Raffone, A., Peruzzo, M., Calabrese, L., Cocchiara, R. A., D'Egidio, V., Leggieri, P. F., Dorelli, B., Zaffina, S., Mannocci, A., & YOMIN Collaborative Group. (2020). Yoga and mindfulness as a tool for influencing affectivity, anxiety, mental health, and stress among healthcare workers. *Journal of Clinical Medicine*, 9(4), 1037.
- Leung, T., Schmidt, F., & Mushquash, C. (2023). A personal history of trauma and secondary traumatic stress. *Psychological Trauma*, 15(Suppl 2), S213–S221.
- Lykins, A. B., Seroka, N. W., Mayor, M., Seng, S., Higgins, J. T., & Okoli, C. T. C. (2024). Compassion satisfaction, burnout, and STS among nursing staff. *Journal of the American Psychiatric Nurses Association*, 30(1), 63–73.
- Maier, C., Thatcher, J. B., Grover, V., & Dwivedi, Y. K. (2023). Cross-sectional research: A critical perspective. *International Journal of Information Management*, 70, 102625.
- Marciniak-Nuqui, Z., Cabling, M. L., & Romanelli, R. J. (2024). Culture of presenteeism. *Occupational Medicine*, 74(2), 167–171.

- Marković, M. V., & Živanović, M. (2022). Coping with secondary traumatic stress. *International Journal of Environmental Research and Public Health*, 19(19), 12881.
- Meyerson, J., Gelkopf, M., Eli, I., & Uziel, N. (2022). Coping strategies and STS among dentists. *International Dental Journal*, 72(4), 476–483.
- Miller, L., & Pehlke, S. (2022). Burnout and sleep disturbances in healthcare professionals. *Journal of Wellness*, 4(1).
- Molnar, B. E., Sprang, G., Killian, K. D., Gottfried, R., Emery, V., & Bride, B. E. (2020). Advancing research on secondary traumatic stress. *Journal of Interpersonal Violence*, 35(7–8), 1536–1553.
- Moreno-Jiménez, J. E., Blanco-Donoso, L. M., Chico-Fernández, M., Belda Hofheinz, S., Moreno-Jiménez, B., & Garrosa, E. (2021). Job demands and STS during COVID-19. *Frontiers in Psychology*, 12.
- Moreno-Jiménez, J. E., Demerouti, E., Blanco-Donoso, L. M., Chico-Fernández, M., Iglesias-Bouzas, M. I., & Garrosa, E. (2023). ICU stress and compassion fatigue. *Current Psychology*, 42(33), 29387–29402.
- Newman, A., Bavik, Y. L., Mount, M., & Shao, B. (2021). Data collection via online platforms. *Applied Psychology*, 70(3), 1380–1402.
- Nylén-Eriksen, M., Bjørnnes, A. K., Hafstad, H., Lie, I., Grov, E. K., & Lara-Cabrera, M. L. (2022). WHO-5 well-being index validation. *International Journal of Environmental Research and Public Health*, 19(18), 11489.

- Ogińska-Bulik, N., Gurowiec, P. J., Michalska, P., & Kędra, E. (2021). STS predictors in healthcare professionals. *PLOS ONE*, 16(2), e0247596.
- Oldland, E., Hutchinson, A. M., Redley, B., Mohebbi, M., & Botti, M. (2021). Instrument reliability study. *Nursing & Health Sciences*, 23(2), 525–537.
- Orrù, G., Marzetti, F., Conversano, C., Vagheggini, G., Miccoli, M., Ciacchini, R., Panait, E., & Gemignani, A. (2021). STS and burnout during COVID-19. *International Journal of Environmental Research and Public Health*, 18(1), 337.
- Öztürk, G., & Barutcu, C. D. (2022). Determination of secondary traumatic stress levels of healthcare workers.
- Park, H., Kim, H., & Kim, H. (2025). STS in emergency nurses. *Journal of Advanced Nursing*, 81(9), 5304–5314.
- Piispa, E. (2023). Extended development of a survey tool using LimeSurvey platform (Master's thesis, Metropolia University of Applied Sciences).
- Powell, M. A. (2024). Understanding the experiences and support needs of nurses during and after the COVID-19 pandemic (Doctoral dissertation, Duke University).
- Proudfoot, B. (2025). Secondary traumatic stress in healthcare professionals in long-term care (Doctor of Social Work capstone project).
- Qian, J., Wang, W., Sun, S., Liu, L., Sun, Y., & Yu, X. (2022). PTSD interventions in healthcare professionals. *BMJ Open*, 12(1).

- Shalabi, K. M., Alshraif, Z. A., Ismail, R. I., Almubarak, K., Mohmoud, N., & Shaik, S. A. (2023). STS among physiotherapists. *Journal of Multidisciplinary Healthcare*, 16, 3287–3297.
- Sinnathamby, A., Ong, Y. T., Lim, S. X., Hiew, A. W. H., Ng, S. Y., Chee, J. H., Tan, M. K. M., Abdul Hamid, N. A. B., Ong, S. Y. K., & Krishna, L. K. R. (2025). End-of-life suffering in healthcare professionals. *American Journal of Hospice and Palliative Medicine*.
- Smith, M. E. (2024). How baccalaureate nursing students experience and cope with secondary traumatic stress (Master's thesis, Western Connecticut State University).
- Søvold, L. E., Naslund, J. A., Kousoulis, A. A., Saxena, S., Qoronfleh, M. W., Grobler, C., & Münter, L. (2021). Mental health and well-being of healthcare workers. *Frontiers in Public Health*, 9.
- Sutton, L., Rowe, S., Hammerton, G., & Billings, J. (2022). Organisational factors in vicarious trauma. *European Journal of Psychotraumatology*, 13(1), 2022278.
- Taris, T. W., Kessler, S. R., & Kelloway, E. K. (2021). Cross-sectional design limitations. *Work & Stress*, 35(1), 1–5.
- Taylor, L. S. (2021). Secondary traumatic stress and countertransference in survivor therapists (Doctoral dissertation, University of Missouri).
- Tracy, S., & Zadinsky, J. (2025). Early detection and intervention in secondary traumatic stress among healthcare professionals.

- Ulaş, S., & Seçer, İ. (2025). Psychological effects of secondary traumatic stress among healthcare providers.
- Van Quaquebeke, N., Salem, M., van Dijke, M., & Wenzel, R. (2022). Online research methods. *Organizational Psychology Review*, 12(3), 268–305.
- Woods, L. (2024). A phenomenological study of mental health clinicians and the onset of secondary traumatic stress (Doctoral dissertation, National University).
- Zacharias, B. S., & Upendra, S. (2024). Secondary traumatic stress systematic review. *Journal of Education and Health Promotion*, 13, 466.
- Zhang, Y. (2021). Validation of compassion fatigue and ProQOL scale in China (Master's thesis, ISCTE – Instituto Universitário de Lisboa).

Appendix A : Professional Quality of Life Scale (ProQOL-5) - French Version

Source : Stamm, B.H (2010)

ÉCHELLE DE QUALITÉ DE VIE PROFESSIONNELLE (ProQOL) Satisfaction par la compassion et usure de la compassion (ProQOL) Version 5 (2009)

[Aider] les autres vous met en contact direct avec leur vie. Comme vous l'avez probablement constaté, votre compassion pour les personnes que vous [aidez] peut vous affecter de manière à la fois positive et négative. Les questions ci-dessous concernent votre expérience, tant positive que négative, dans votre fonction d'[aide]. Lisez chacune des questions ci-après sur vous et votre situation professionnelle actuelle. Choisissez la note qui reflète honnêtement la fréquence à laquelle vous avez fait les expériences suivantes au cours des 30 derniers jours.

1=Jamais 2=Rarement 3=Parfois 4=Souvent 5=Très souvent

1	Je suis heureux.
2	Je suis préoccupé par plus d'une des personnes que j'[aide].
3	Je ressens de la satisfaction à pouvoir [aider] les autres.
4	Je me sens lié à autrui.
5	Je sursaute ou suis surpris par des bruits inattendus.
6	Travailler avec ceux que j'[aide] me donne de l'énergie.
7	Il m'est difficile de séparer ma vie privée de ma profession d'[aidant].
8	Ma productivité au travail baisse parce que je perds le sommeil du fait des expériences traumatisantes d'une personne que j'[aide].
9	Je pense que j'ai pu être affecté par le stress traumatique des personnes que j'[aide].
10	Je me sens pris au piège par mon travail d'[aide].
11	En raison de mon travail d'[aide], je me suis senti « sur les nerfs » pour diverses raisons.
12	J'aime mon travail d'[aide].
13	Je me sens déprimé du fait des expériences traumatisantes des personnes que j'[aide].
14	J'ai l'impression de ressentir le traumatisme d'une personne que j'ai [aidée].
15	Mes croyances/convictions me soutiennent.
16	Je suis satisfait de la façon dont je me tiens au courant de l'évolution des techniques et protocoles d'[aide].
17	Je suis la personne que j'ai toujours voulu être.
18	Mon travail me procure de la satisfaction.
19	Je me sens épuisé par mon travail d'[aide].
20	J'ai des pensées et des sentiments agréables concernant les personnes que j'[aide] et la façon dont j'ai pu les aider.
21	Je me sens submergé parce que la charge de travail à laquelle je dois faire face me semble inépuisable.
22	Je crois que mon travail me permet de faire la différence.
23	J'évite certaines activités ou situations car elles me rappellent des expériences effrayantes faites par des gens que j'[aide].
24	Je suis fier de ce que je peux faire pour [aider].
25	Du fait de mon travail d'[aide], je suis envahi par des pensées effrayantes.
26	Je me sens « coincé » par le système.
27	J'ai le sentiment de réussir dans mon travail d'[aide].

Appendix B : Professional Quality of Life Scale (ProQOL-5) - English Version

Source : Stamm, B.H (2010)



Professional Quality of Life Scale - 5 (ProQOL)

Instructions:

When you [help] people you have direct contact with their lives. As you may have found, your compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper]. Consider each of the following questions about you and your current work situation. Select the answer that honestly reflects how frequently you experienced these things in the last 30 days. When answering feel free to replace the word "help" with another word that better reflects your work.

		Never	Rarely	Sometimes	Often	Very Often
1	I am happy.	5	4	3	2	1
2	I am preoccupied with more than one person I [help].	1	2	3	4	5
3	I get satisfaction from being able to [help] people.	1	2	3	4	5
4	I feel connected to others.	5	4	3	2	1
5	I jump or am startled by unexpected sounds.	1	2	3	4	5
6	I feel invigorated after working with those I [help].	1	2	3	4	5
7	I find it difficult to separate my personal life from my life as a [helper].	1	2	3	4	5
8	I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help].	1	2	3	4	5
9	I think that I might have been affected by the traumatic stress of those I [help].	1	2	3	4	5
10	I feel trapped by my job as a [helper].	1	2	3	4	5
11	Because of my [helping], I have felt "on edge" about various things.	1	2	3	4	5
12	I like my work as a [helper].	1	2	3	4	5
13	I feel depressed because of the traumatic experiences of the people I [help].	1	2	3	4	5
14	I feel as though I am experiencing the trauma of someone I have [helped].	1	2	3	4	5

Appendix C : WHO-5 Well Being Index - English Version

Source : World Health Organization (1998)



WHO-5 Well-being Index

Please respond to each item by marking <u>one box per row</u> , regarding how you felt in the last two weeks.		All of the time	Most of the time	More than half the time	Less than half the time	Some of the time	At no time
WHO 1	I have felt cheerful in good spirits.	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
WHO 2	I have felt calm and relaxed.	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
WHO 3	I have felt active and vigorous.	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
WHO 4	I woke up feeling fresh and rested.	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
WHO 5	My daily life has been filled with things that interest me.	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0

Scoring:

The raw score is calculated by totaling the figures of the five answers. The raw score ranges from 0 to 25, 0 representing worst possible and 25 representing best possible quality of life.

To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. A percentage score of 0 represents worst possible, whereas a score of 100 represents best possible quality of life.

Regional Office for Europe WHO. Use of Well-Being Measures in Primary Health Care - The DepCare Project. Health for All, Target 12, 1998 [<http://www.who.dk/document/e60246.pdf>]

Bech P. Measuring the dimensions of psychological general well-being by the WHO-5. QoL Newsletter 2004; 32: 15-16.

Appendix D : WHO-5 Well Being Index - French Version

Source : World Health Organization



Psychiatric Research Unit
 WHO Collaborating Centre in Mental Health

Indice (en cinq points) de bien-être de l'OMS (1999)

Veuillez indiquer, pour chacune des cinq affirmations, laquelle se rapproche le plus de ce que vous avez ressenti au cours des deux dernières semaines. Notez que le chiffre est proportionnel au bien-être.

Exemple : si vous vous êtes senti(e) *bien et de bonne humeur plus de la moitié du temps au cours des deux dernières semaines*, cochez la case 3.

Au cours des deux dernières semaines	Tout le Temps	La plupart du temps	Plus de la moitié du temps	Moins de la moitié du temps	De temps en temps	Jamais
1. Je me suis senti(e) bien et de bonne humeur	5	4	3	2	1	0
2. Je me suis senti(e) calme et tranquille	5	4	3	2	1	0
3. Je me suis senti(e) plein(e) d'énergie et vigoureux(se)	5	4	3	2	1	0
4. Je me suis réveillé(e) en me sentant frais(che) et dispos(e)	5	4	3	2	1	0
5. Ma vie quotidienne a été remplie de choses intéressantes	5	4	3	2	1	0

Calcul des points :

Pour calculer votre score, ajoutez les chiffres correspondant aux cases que vous avez cochées et multipliez la somme par quatre. Vous obtiendrez alors un score compris entre 0 et 100. Un score élevé signifie un meilleur bien-être.

Appendix E : Traumatic Events in Healthcare Context (TEHC)

Source : Developed by the author

Traumatic Events in Healthcare Context (TEHC) - English Version

Instructions: Please indicate, for each situation, to what extent it affects you. Tick the appropriate box.

Situation	This has never happened to me	It does not affect me at all	It affects me slightly	It affects me moderately	It affects me significantly	It affects me extremely
1. Violence or aggression from patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Death of a patient (non-suicide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Death of a patient by suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Exposure to patients' traumatic stories (abuse, violence, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Feeling of helplessness (inability to help or relieve patients)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Lack of support system (insufficient supervision, colleague isolation, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Moral conflicts / ethical dilemmas (confidentiality, patient prioritization, involuntary treatments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Stigmatization (self-stigma, shame of asking for help, professional stigma)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Professional burnout (high workload, institutional pressure)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Lack of recognition (little appreciation from colleagues, management, or society)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Événements traumatiques en contexte de soins de santé (THEC) - Version française

Consignes : Veuillez indiquer, pour chaque situation, dans quelle mesure elle vous affecte. Cochez la case correspondante.

Situation	Cela ne m'est jamais arrivé	Cela ne m'affecte absolument pas	Cela m'affecte légèrement	Cela m'affecte de manière modérée	Cela m'affecte de manière significative	Cela m'affecte de façon extrêmement importante
1. Violences ou agressions de la part de patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Décès d'un patient (hors suicide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Décès d'un patient par suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Exposition aux récits traumatiques des patients (abus, violence, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sentiment d'impuissance (incapacité à aider ou soulager les patients)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Manque de système de soutien (supervision insuffisante, isolement entre collègues, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Conflits moraux / dilemmes éthiques (confidentialité, priorisation des patients, traitements involontaires, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Stigmatisation (auto-stigmatisation, honte de demander de l'aide, stigmatisation professionnelle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Épuisement professionnel (charge de travail élevée, pression institutionnelle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Manque de reconnaissance (peu de valorisation par les collègues, la hiérarchie ou la société)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix F : Entretien semi-structuré exploratoire - Version Française

Objectif

Identifier les événements professionnels les plus marquants et les plus susceptibles de générer un stress traumatique secondaire (STS) chez les professionnels de santé.

Consigne

« Nous souhaitons identifier les situations professionnelles les plus difficiles ou marquantes que vous avez vécues dans votre pratique. »

Informations générales

Profession :

- Médecin
- Infirmier(ère)
- Psychologue
- Psychiatre
- Autre : _____

Questions principales

1. Quelles sont les situations professionnelles les plus marquantes ou les plus difficiles que vous avez vécues ?
2. Parmi ces situations, lesquelles ont été les plus stressantes ou les plus impactantes émotionnellement ?
3. Quels types d'événements vous semblent les plus susceptibles de provoquer un stress important chez les professionnels de santé ?

Les réponses issues de cet entretien ont permis d'identifier les catégories d'événements les plus fréquemment rapportés et les plus impactants, servant de base à l'élaboration des items du questionnaire TECH.

Appendix G : Semi-Structured Exploratory Interview - English Version

Objective

To identify the most significant and emotionally impactful professional events experienced by healthcare workers, particularly those likely to induce secondary traumatic stress (STS).

“We aim to identify the most difficult or impactful situations you have experienced in your professional practice. There are no right or wrong answers. Your responses will remain anonymous and used only for research purposes.”

General Informations

Profession:

- Physician
- Nurse
- Psychologist
- Psychiatrist
- Other: _____

1. What are the most significant or difficult situations you have experienced in your professional practice?
2. Among these situations, which ones were the most stressful or emotionally impactful?
3. What types of events do you think are most likely to cause significant stress among healthcare professionals?

The responses obtained from this interview were used to identify the most frequently reported and impactful events, which served as the basis for developing the items of the TECH questionnaire.