

# Vicarious Trauma among Nurses Working in Addiction Services and the Role of Leadership: A European Mixed Methods Study

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of Philosophy

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# Declaration

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## Abstract

**Background:** The phenomenon of vicarious trauma (VT) has been the subject of considerable attention for over 30 years, but its impact on nurses in addiction services remains poorly understood, despite the established link between trauma and addiction. This research aimed to fill this gap by investigating the prevalence and risk factors of VT among nurses who work with people with addiction problems and by exploring the relationship between leadership and VT.

**Aims and Objectives:** The aim was to measure VT prevalence and its associated risk and protective factors among nurses who work in addiction services. The five objectives were to quantify VT prevalence, risk, and protective factors among nurses who work in addiction services; measure leadership's association with VT in nurses who work in addiction services; explore nurses' VT experiences and protective factors perceptions; determine nurses' views on leadership and its role in minimising VT; and utilise the findings derived from this study to develop evidence-based guidelines for minimising VT among nurses working in addiction services, with a specific focus on enhancing effective leadership practices.

**Methods:** This mixed-methods research employed a sequential explanatory approach. The study began with a quantitative survey involving nurses who work in addiction services in Europe, using the Vicarious Trauma Scale (VTS), Vicarious Trauma—Organisational Readiness Guide (VT-ORG), demographic questionnaire, and coping mechanisms assessment. Subsequently, a follow-up qualitative phase included semi-structured interviews with self-selected participants. Follow-up joint display facilitated a comprehensive analysis of the data integration.

**Main Findings:** A substantial moderate to high VT risk (88.43%) was identified among nurses who work in addiction services. Surprisingly, they also displayed noteworthy resilience and personal growth in relation to VT. Notably, nurses aged between 36 and 55 exhibited a lower VT score (85.7%) compared to their younger counterparts (97.4%) with  $p=.078$ . Moreover, nurses holding higher positions, such as those in Administration

(Clinical Nurse Managers or Assistant/Director of Nursing) ( $p = .013$ ) and Clinical Nurse Specialists, were found to be at a significantly increased risk of developing VT. Interestingly, nurses from The Netherlands were six times more likely to have a lower VT score ( $p = .004$ ) than their counterparts in Ireland, the UK, Portugal, and other European countries. Additionally, nurses in addiction services employ various coping mechanisms, including peer support, social support, education, nuanced detachment, and maintaining empathetic connections. Leadership within organisations and supervision emerged as crucial in addressing VT. Nurses who reported a lack of these aspects had a significantly higher risk of VT ( $p = .005$ ). The absence of a clear vision of the organisation's mission ( $p = .044$ ), regular meetings to address trauma exposure ( $p = .038$ ), clear communication on decision-making ( $p = .005$ ), and proactive leadership strategies ( $p = .035$ ) were identified as contributing factors to this heightened risk. Furthermore, inadequate salary and benefits ( $p = .033$ ), insufficient training on vicarious trauma ( $p = .010$ ), and stress ( $p = .021$ ), coupled with a lack of policies supporting nurses and their families ( $p = .048$ ), increased the risk of VT. Adopting a leadership approach characterised by teamwork, support, autonomy, and positive communication and a work atmosphere could significantly minimise the risk of developing VT.

**Conclusion & Implications:** The findings suggest that VT is a major concern for nurses working in addiction services. It highlights the significance of leadership in VT prevention and recommends a more contemporary leadership approach, such as distributed leadership. The findings contribute to enhancing the quality of care in addiction services and offer evidence-based guidelines for nurses and for their organisations for managing and preventing VT in addiction services.

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# Chapter One

## Introduction

### 1.1 Motivation and Background to the Study

The topic of Vicarious trauma (VT) is a well-researched phenomenon, however, despite extensive research in the field, the understanding of its full impact on nurses working in addiction services remains incomplete. It is well-documented that nurses often experience high levels of stress in their work environments, and addiction services have been specifically identified as particularly challenging settings (Nabitz *et al.*, 2009). The connection between exposure to traumatic events and the subsequent development of addictions has been highlighted by numerous studies (Lisak, 1994; Switzer *et al.*, 1999; Kilpatrick & Acierno, 2003; Khoury *et al.* 2010; Walsh *et al.*, 2010; Wu *et al.*, 2010; Lambert & Gill-Emerson, 2017).

For instance, research indicates that a significant percentage of individuals who have experienced trauma are likely to engage in substance use, with approximately 76% of trauma survivors exhibiting this behaviour (National Child Traumatic Stress Network, 2008). Furthermore, a striking 97% of women who use drugs have reported experiencing one or more violent traumas in their past (Fullilove *et al.*, 1993). Additionally, it has been found that 80% of rape victims develop a history of drug addiction in adulthood (Lisak, 1994). In addition, it was found that teenagers who had undergone physical or sexual abuse were three times more inclined to disclose past or present substance misuse compared to those who hadn't experienced such trauma (Kilpatrick *et al.* 2003). Similarly, in surveys involving adolescents undergoing substance misuse treatment, over 70% of the patients had a background of exposure to trauma (Kilpatrick *et al.*, 2003; Funk *et al.*, 2003). Some studies have also revealed that, alcohol and drug use precede exposure to traumatic events. But also, that addiction can potentially lead to further traumatising and result in various negative health-related behaviours, homelessness, and associated behaviours

(Lambert & Gill-Emerson, 2017). Importantly, research has also shown that trauma does not solely affect the individuals who have directly experienced it. The trauma of an individual can have a secondary influence on anyone who interacts with them, particularly frontline healthcare professionals, including nurses (Conti-O'Hare, 1998), psychiatrists (Boscarino *et al.*, 2010), therapists (Pearlman & Saakvitne, 1995), and counsellors (Sexton, 1999). This phenomenon of indirect trauma experienced through the therapeutic relationship is commonly referred to as vicarious trauma.

Despite the growing recognition of the interconnectedness between addiction and trauma, there is a surprising lack of research specifically investigating the negative consequences that nurses may face when engaging in empathetic therapeutic relationships with individuals carrying the dual burden of addiction and trauma. The experiences of nurses working in addiction services in relation to vicarious trauma remains largely unexplored and understudied. Consequently, there is an urgent need for empirical investigations to shed light on the unique challenges, emotional toll, and coping mechanisms encountered by nurses in these settings. Such research endeavours are invaluable in advancing our knowledge of the potential adverse effects of vicarious trauma on healthcare professionals and in developing appropriate support mechanisms and interventions to mitigate its impact on nurses in addiction services. By addressing this research gap, nurses' well-being can be enhanced, and the overall quality of care provided to individuals with addiction problems, improved.

Vicarious trauma refers to the negative cognitive and belief system changes experienced by individuals who work in helping professions, resulting from their empathetic involvement with clients' traumatic experiences (McCann and Pearlman, 1990). The concept of vicarious trauma is grounded in the Constructivist Theory of Self Development (CSDT), which integrates psychoanalytic theories with cognitive theories (McCann *et al.*, 1990). According to this theory, individuals construct their realities through cognitive structures called schemas, which are used to interpret events (Robinson *et al.*, 2003). Vicarious trauma can lead to irrational perceptions among professionals exposed to the trauma of others and results in alterations in safety, trust, power, esteem, and intimacy (McCann and Sakheim, 1988; Trippany *et al.*, 2004; Sansbury, Graves and Scott, 2014; van

der Merwe and Hunt, 2018; Branson, 2018). Vicarious trauma not only affects the personal lives of individuals but also influences the care provided by nurses (Clark and Gioro, 2007). Professionals in the addiction field are more likely to develop vicarious trauma (Cosden *et al.* 2016), and risk factors for its development include countertransference (Wilson & Lindy, 1994; Pearlman & Saakvitne, 1995; Sabin-Farella & Turpin, 2003; Knight, 2013), individual factors (Peled-Avram, 2017), inadequate work environment and organisation (Bride, Jones and MacMaster, 2007; Brockhouse, 2010; Knight 2013; Sansbury *et al.*, 2014; Van der Merwe and Hunt, 2018) and stress and burn out (Harrison and Westwood, 2009; Meadors *et al.* 2009; Sansbury *et al.*, 2014; Sacco *et al.*, 2015). Vicarious trauma can have physical, neurological, emotional, cognitive, sexual, and spiritual effects on professionals (Branson, 2018). It has been observed that vicarious trauma leads to similar symptoms as post-traumatic stress disorder (PTSD), although the professionals did not directly experience the trauma (Fox 1998; Knight, 2013). Vicarious trauma not only affects healthcare professionals but also has considerable consequences for the healthcare system and patients (Robinson *et al.*, 2003; Sommer, 2008).

Despite the common perception of trauma solely leading to negative outcomes, there is evidence suggesting that trauma can unexpectedly foster positive growth and resilience in clients. Trauma survivors often exhibit remarkable resilience, courage, and personal development as they navigate and cope with their experiences (Hernández *et al.*, 2010). Professionals who work closely with trauma survivors may also undergo a transformative process themselves, experiencing personal growth as they witness the resilience and recovery of their clients. This phenomenon is known as vicarious post-traumatic growth, where professionals develop new perspectives, values, and strengths through their exposure to trauma narratives (Tedeschi & Calhoun, 2004). Furthermore, professionals may also experience vicarious resilience, deriving strength and inspiration from the resilience they witness in their clients, which can in turn bolster their own well-being and coping abilities (Hernández *et al.*, 2010). Additionally, the satisfaction and fulfilment derived from making a positive impact on the lives of trauma survivors can lead to compassion satisfaction and compassion contentment among professionals (Sacco *et al.*, 2015; Todaro-Franceschi, 2019). These positive outcomes highlight the complex and multifaceted nature of the therapeutic relationship between professionals and trauma

survivors, demonstrating the potential for growth and resilience even in the face of adversity.

Professionals who experience vicarious post-traumatic growth have developed coping mechanisms to deal with stressors and trauma (Pryce, Shackelford and Pryce, 2007). Some coping strategies identified in the literature include resilience (Thompson *et al.*, 2011; Rees *et al.* 2015; Slatyer *et al.*, 2018), self-care (Salston & Figley, 2003; Sommer 2008; Newell & MacNeil, 2010; Ludick & Figley 2017), mindfulness (Harrison and Westwood, 2009; Thompson *et al.*, 2011; Magtibay *et al.*, 2017), healthy lifestyle (Pearlman, 1999; Newell & MacNeil, 2010; Zadeh *et al.*, 2012; Molnar *et al.* 2017) detachment (Figley 2002; Sonnentag & Bayer, 2005), education (Pearlman 1999; Robinson *et al.*, 2003; Knight, 2013; Tierney, 2016; Ludick & Figley, 2017) and social support (Boscarino *et al.*, 2004; Harrison and Westwood, 2009; Ludick & Figley, 2017).

The role of nurses working in addiction services has evolved but has not received as much attention as other specialised areas (Mumba & Snow, 2017). The concept of vicarious trauma is often overlooked in this context, and there is a lack of understanding and knowledge about its relationship with nurses working in addiction services. There is a taxonomical conundrum surrounding this phenomenon, and terms such as secondary traumatic stress (Stamm, 1999), compassion fatigue (Figley, 1995), emotional contagion (Hatfield *et al.*, 1993) and empathy fatigue (Stebnicki, 2007) are often associated or used interchangeably with vicarious trauma. The lack of a standardised qualification for addiction nurses in Europe further complicates the understanding of vicarious trauma in this field (Clancy *et al.*, 2019). Nurses in addiction services may also exhibit negative attitudes toward patients with substance use problems (Miller *et al.*, 2001; Room 2005; Corrigan *et al.*, 2009; van Boekel *et al.*, 2013; Morgan, 2014; Tierney, 2016; Daibes *et al.*, 2017), which can be influenced by factors such as employment (Naegle, 2015), stigma (Room 2005; Corrigan *et al.* 2009; Daibes *et al.*, 2017), lack of education (Miller *et al.* 2001; Chang and Yang, 2013; Tierney, 2016; Daibes *et al.*, 2017) and lack of hope (De Vargas & Villar Luis, 2008). These negative attitudes can significantly impact the quality of care provided to patients.

Although VT has been interchangeably referred to as other phenomena in the literature, such as compassion fatigue (CF) (Figley, 1995), Secondary Stress Disorder (STS) (Figley, 1995), or Empathy fatigue (EF) (Stebnicki, 1999), VT refers to a unique phenomenon. The rationale of focusing on vicarious trauma instead of other phenomena mentioned above, in the context of nurses working in addiction services, provides a nuanced exploration of the psychological and cognitive changes experienced by these healthcare professionals. Unlike CF, which is often considered a short-term response confined to therapy sessions, VT is deeply rooted in the constructivist self-development theory, suggesting lasting changes in professional identity. By examining VT, this research can capture a broader range of negative consequences specific to nurses in addiction services, considering their unique interactions with individuals struggling with substance misuse. This approach addresses a significant gap in the literature, as there is a paucity of studies concerning VT among nurses in addiction services. By filling this gap, we can contribute valuable insights into the prevalence, risks, and impacts of indirect trauma exposure on nurses' well-being and professional identity, aligning with the constructivist self-development theory and providing tailored support interventions for this vulnerable population.

The literature reviewed also emphasises the importance of leadership in preventing the development of vicarious trauma among nurses working in addiction services. Proactive leadership is crucial in creating a supportive work environment that mitigates the potential impact of vicarious trauma (Pearlman 1999; Cummings, 2004; Sommer 2008; McKenna & Jeske, 2020). However, the literature primarily focuses on two contrasting approaches to leadership: transactional (task-focused) and transformational (relationship-focused) leadership (de Vries & Curtis, 2019; Sammut & Scicluna, 2020; Wu *et al.*, 2020). Transactional leadership primarily emphasises task completion and hierarchical management (Sammut & Scicluna, 2020). It is motivated by rewards and threats of punishment. On the other hand, transformational leadership is recognised as a supportive approach that engages nurses emotionally and intellectually (Wu *et al.*, 2020). It focuses on building relationships (Cummings *et al.* 2010; Shyamsunder, 2016), setting goals, and incentivising high performance while providing opportunities for personal and professional growth (Sammut & Scicluna, 2020).

While the transformational leadership model has been associated with the well-being of organisations and their employees (de Vries & Curtis, 2019), there is a lack of research specifically examining the effect of this leadership model on vicarious trauma. The majority of the literature highlights the role of managers in alleviating indirect trauma. Mechanisms such as debriefing with managers and clinical supervision have been shown to be essential in reducing stress among nurses and preventing the development or escalation of excessive work stress (Hussein Rassool & Lind, 2000; Hesse 2002; Canfield 2005; Trippany *et al.*, 2004; Ericson-Lidman & Strandberg, 2009; Harrison and Westwood, 2009; Knight, 2013; Ludick & Figley, 2017; Branson, 2018).

Contemporary literature suggests a more unified approach to leadership, considering it on a continuum rather than as two distinct dimensions (de Vries & Curtis, 2019). One emerging approach is distributed leadership, which encourages nurses to utilise their subjective perspectives, recognise their strengths and responsibilities, and foster their own and their colleagues' leadership potential. Some studies have indicated that distributed leadership has an impact on job stress (Rabindarang *et al.*, 2014) which is a common risk factor for vicarious trauma (Boscarino *et al.*, 2010).

In the present study, leadership is viewed as a collective process in which all health professionals can contribute. The importance of leadership at both the personal and organisational levels is recognised. A distributed leadership approach is proposed, considering organisational leadership, managerial leadership, and personal leadership on the same continuum for the benefit of nurses and the prevention of vicarious trauma. However, the literature review reveals, as we shall see in chapter 2, a scarcity of research on the prevalence of vicarious trauma and its association with leadership. To develop effective interventions to manage and prevent vicarious trauma, it is crucial to better understand the role of leadership in this context. The present study aims to address this research gap and provide insights into the relationship between leadership and vicarious trauma among nurses in addiction services.

## **1.2 Aims and Objectives of the Research**

The aim of this study was to measure the prevalence and risk of vicarious trauma among a sample of nurses working in addiction services and to explore the association between leadership and VT.

The objectives were:

1. to quantify the prevalence of vicarious trauma and associated risk and protective factors of VT among nurses who work in addiction services.
2. To measure the association between leadership and the occurrence of vicarious trauma among nurses working in addiction services.
3. To explore nurses' experiences of vicarious trauma and their perceptions of protective factors for vicarious trauma.
4. To determine nurses' views about leadership and its role in minimising vicarious trauma.
5. To utilise the findings derived from this study to develop evidence-based guidelines for minimising vicarious trauma among nurses working in addiction services, with a specific focus on enhancing effective leadership practices.

## **1.3 Conceptual Framework of the Research**

The conceptual framework for this research study serves as a fundamental structure, providing a comprehensive understanding of the multiple contexts involved, including theoretical, conceptual, axiological, and practical aspects. The background and perspective of the researcher are important in constructing and comprehending the goals and significance of the research project (see Chapter 7, paragraph 7.5 "Reflection on the Research Process").

The researcher's interest in the addiction field stems from professional experiences in nursing, particularly in addiction services. The observations made during this time highlight the unique nature of the therapeutic relationship with patients in addiction care

and the challenges faced by nurses in this field. This fascination with addiction led the researcher to pursue further education and explore the phenomenon of vicarious trauma. The primary research objective guiding this study was to measure the prevalence and risk of vicarious trauma among nurses in addiction services and to investigate the association between leadership and vicarious trauma. Understanding the reasons behind nurses' vulnerability to vicarious trauma and the factors that contribute to resilience was crucial. Furthermore, identifying the responsible parties for informing nurses about this phenomenon was important for addressing the issue effectively.

The conceptual framework was developed based on the researcher's understanding and knowledge, as well as an extensive review of relevant literature. The framework incorporates three central core variables: risk factors, risk reduction strategies, and leadership. A modified diagram from Ravitch and Carl (2021) (Figure 1) illustrates the multiple components that intersect, inform, and influence each other included in this conceptual framework.

Table 1.1 - *The Interactive Components of a Conceptual Framework (modified model from Ravitch & Carl, 2021, page 34).*

<b>Aim, Objectives and Goals</b>	<b>Theoretical and Key Components of the Literature</b>	<b>Analytical approach</b>	<b>Methodological Approach and Research Methods</b>
<ul style="list-style-type: none"> <li>- to quantify the prevalence of VT and associated risk and protective factors of VT among nurses who work in addiction services.</li> <li>- to measure the association between leadership and the occurrence of VT among nurses working in addiction services.</li> <li>- to explore nurses' experiences of vicarious trauma and</li> </ul>	<p>-Constructivism self-development theory (CTSD) (McCann and Pearlman, 1990).</p> <p><u>Key Components of the Literature:</u></p> <p>1) nurses who are working with patients with addiction issues are in direct contact with the</p>	<p>- First phase: Nurses working in addiction services in Europe completed an anonymous online questionnaire consisting of the Vicarious Trauma Scale (VTS), Vicarious Trauma— Organizational Readiness Guide (VT–ORG), demographic questions, and coping mechanisms.</p> <p>- Second phase: Participants who completed the survey</p>	<p>Explanatory mixed methods research</p> <p>Quantitative survey that informs the qualitative interview questions.</p> <p>Integration created with joint display.</p>

Aim, Objectives and Goals	Theoretical and Key Components of the Literature	Analytical approach	Methodological Approach and Research Methods
<p>their perceptions of protective factors for VT.</p> <p>- to determine their views about leadership and its role in minimising VT.</p> <p>- to utilise findings from the study to develop guidelines for minimising VT among nurses and improve effective leadership.</p>	<p>patients' trauma.</p> <p>3) leadership is central to minimise the risks of VT</p> <p>- <u>Tacit theory:</u> 1) nurse-patient relationship in addiction field are of a different and unique kind.</p>	<p>in the first phase had the option to participate in the second phase through email communication. 15 nurses participated in semi-structured interviews, comprising 13 open-ended questions, and gathering some demographic information.</p>	

The significance of this research lies in recognising vicarious trauma as a genuine phenomenon that affects nurses and has implications for patient care. By understanding and addressing vicarious trauma, healthcare professionals can enhance the quality of care provided in addiction services.

## 1.4 Structure of the Thesis

The structure of the thesis is divided into 7 chapters as follows:

Chapter 1 presents the context and rationale for the research, including the research aim and objectives. The chapter presents the definitions used within the thesis. It also offers an overview of the conceptual framework for this research and highlights the distinctive role of the researcher. The chapter concludes by outlining the overall structure of the thesis and gives an overview of the existing literature.

Chapter 2 examines the existing literature concerning the essential concepts, themes, and theories related to the research. It presents a comprehensive literature review conducted with a systematic review for the study. The chapter identifies relevant studies that

contribute to the specific research area of interest. It encompasses topics such as vicarious trauma, nurses who work in addiction services and leadership. These selected studies offer a detailed examination of specific research that aligns with the aims and objectives of the current study and the review identifies the gap in the current literature. A summary of the reviewed literature is provided, highlighting the implications of the findings on the thesis at hand.

Chapter 3 describes the methodology utilised in this research. It clarifies the researcher's worldview, and the research ontology, epistemology and axiology are provided. The research methodology is carefully defined and justified, outlining the study's framework and documenting the research design. A comprehensive description of the step-by-step process used in the mixed methods research delivery is provided. This includes the sampling strategy, participant recruitment, and data management and analysis. Each phase, both quantitative and qualitative, is described in detail, emphasising the relevant quality considerations. The chapter concludes with an overview of the data integration phase before summarising its contents.

Chapter 4 explores the findings from the quantitative data analysis are presented. The participants demographic profile, and the analysis of the "vicarious trauma scale" (VTS) along with the "vicarious trauma organisational readiness guide" (VT-ORG) scale are analysed. Objectives one and two are addressed in this chapter.

Chapter 5 of the research study outlines the characteristics of the interview participants. Before analysing the qualitative data obtained from the semi-structured interviews, the researcher provides information about the individuals who participated in the interviews. These characteristics include demographic information, professional backgrounds, and relevant experiences. Thematic analysis with an inductive approach was utilised to analyse the data. The chapter also includes a summary of the key findings obtained from the qualitative analysis. These findings provide a comprehensive understanding of the data collected from the interviews and highlight the main themes and insights that emerged from the analysis. This chapter met objectives number three and four.

Chapter 6 brings together the findings from both the quantitative and qualitative analysis. The findings are then integrated and presented using a Follow-up Results Joint Display. Ultimately, the meta-inferences derived from the integrated findings are presented.

Chapter 7 is the final chapter of the research, and encompasses the contributions, recommendations, and conclusions drawn from the study. In this chapter, guidelines and their implication in the nursing field and organisations are presented. Furthermore, the chapter proposes directions for further research, identifying three areas that require intervention for the minimisation of VT based on the findings of the current study. These recommendations serve to guide future researchers in building upon the current research and expanding knowledge in the field. The strengths and limitations of this research are also reported.

The next chapter discusses the systematic approach utilised in the literature review of this research.

# Chapter Two

## Literature Review with systematic approach

### 2.1. Introduction

This chapter provides a comprehensive literature review conducted using a systematic approach.<sup>1</sup> This approach involves a thorough search aimed at identifying, evaluating, and synthesising existing research pertaining to a specific topic or research question. By employing clear and systematic procedures, this strategy facilitates the search, selection, appraisal, and evaluation of relevant studies in a manner that minimises bias and maximises the reliability and validity of the findings (Bruce and Mollison, 2004).

This chapter aims to identify the specific gap in the literature regarding the phenomenon of vicarious trauma among nurses working in the addiction field. While it is widely acknowledged that vicarious trauma poses a substantial risk to healthcare professionals who work with individuals affected by trauma, addressing this within the nursing domain, particularly in the context of nursing in addiction, has been insufficient and overlooked as we shall see within this review.

### 2.2 Background

Vicarious trauma is a phenomenon characterised by the negative change of cognitive schemas and belief systems that derives from the empathic involvement of healthcare professionals with the traumatic experiences of others (McCann and Pearlman, 1990). Nurses who work in addiction services are highly vulnerable to experiencing VT, as people who use substances have often experienced one, or more, traumatic event in the past (Lisak, 1994; Switzer, 1999; Kilpatrick & Acierno, 2003; Khoury *et al.*, 2010; Wu *et al.*, 2010; Walsh *et al.*, 2010; Lambert & Gill-Emerson, 2017). The background literature highlighted

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<sup>1</sup> This chapter was successfully submitted as a paper and is currently undergoing review after minor changes, before submission. “Annunziata, K. N., Comiskey, C., Curtis, E. (2024). A Literature Review and Narrative Synthesis of Vicarious Trauma Findings Among Nurses Working in Addiction Services. *Journal of Addiction Nursing* (resubmitted following minor changes, pending publication).

that leadership is of central importance for a supportive and well-organised work environment that mitigates the possible development of vicarious trauma (Pearlman 1999; Cummings, 2004; Sommer 2008). Research has indicated that it is not sufficient for healthcare professionals to use coping mechanisms, but it is the responsibility of leadership to create a healthy work environment designed to reduce potential vicarious trauma experiences (Sommer, 2008).

Although the symptoms, effects, and consequences of vicarious trauma have been described with regard to healthcare professionals in a number of studies (Pearlman & Saakvitne, 1995; Adams *et al.*, 2001; Robinson, Clements and Colleen, 2003; Sommer, 2008; Barrington & Shakespeare-Finch, 2013; Ma'irean & Turliuc, 2013; Ewer *et al.*, 2015), VT is a phenomenon not previously studied among nurses who work in addiction services. The main purpose of this literature review is to identify the specific gap in the literature and therefore clarify the connection between vicarious trauma, addiction, and leadership within the nursing profession. The chapter discusses the scholarly literature regarding vicarious trauma among nurses who work with people with addiction. It begins with an overview of the methodology used and then continues with the identified literature.

### **2.3 Search Strategy**

The literature review was conducted using a systematic approach that consisted of searching and analysing the available and pertinent evidence in a methodical, impartial, and reliable manner (Bruce and Mollison, 2004). The choice of a systematic approach was driven by the intricate and evolving nature of this subject matter. Given the limited existing research and the need for a more adaptable and exploratory methodology within this emerging field, a systematic approach offered the flexibility required to collect and analyse a diverse array of information.

In June 2019, the specialist librarian at Trinity College Dublin's School of Nursing was engaged and consulted, providing valuable insights and resources. Subsequently, the researcher went off books from September 2019 to March 2020. Upon resuming the

doctoral research, the researcher reconnected with the librarian, to enrich academic rigor and refine the coding process for themes development.

### **2.3.1 Selection of research articles**

Two concepts within the literature were particularly relevant to this review: vicarious trauma and nurses. Addiction was also considered important, however, the term "addiction" within nursing yielded insufficient results, possibly due to a lack of standardised terminology for the profession, and no relevant studies in European nursing literature were found.

The systematic review was conducted employing a deductive approach, guided by clearly established aims and objectives from the outset of the research. This structured approach ensured that the parameters for investigation were predefined, allowing for a focused exploration of pertinent themes. Specifically, the review aimed to examine several key areas within the nursing profession, including the prevalence of Vicarious Trauma (VT) within relevant literature, identification of associated risk factors, analysis of coping mechanisms employed by nurses, understanding the potential consequences of experiencing VT among nurses, and evaluating the influence of organisational leadership in mitigating or exacerbating VT within nursing contexts. By delineating these focal points, the review aimed to provide a comprehensive understanding of VT and its implications within the nursing profession.

Before commencing the review, inclusion and exclusion criteria for the selection of articles were prepared. A systematic identification and analysis of the relevant information was conducted through computerised bibliographic databases. The six databases used were Cinahl, Medline, PsycINFO, Embase, Web of Science (WoS), and the Global Index of Medicines (WHO). The two concepts (S) searched in each database were "vicarious trauma" and "nurs\*".

(S1) vicarious trauma: The databases were reviewed for articles on VT, but as there is little literature about it within nursing, some of the databases have linked the concepts of compassion fatigue, burnout, secondary stress, and secondary traumatisation, as

synonyms. However, for the purpose of this review, all the results for the synonyms were analysed. The concept of compassion fatigue is connected to nursing, so finding a connection between the two concepts was not surprising.

(S2) For a deeper search, the concept of vicarious trauma and all the concepts associated with this were searched. The concepts used were: "vicarious trauma\*" OR "vicarious post trauma\*" OR "vicarious post-trauma\*" OR "secondary traumatic stress\*" OR "compassion fatigue" OR "compassion satisfaction" OR "empathic strain" OR "empathic stress" OR "indirect trauma\*" OR "indirect stress\*". Once "vicarious trauma" and its associated concepts were in the Search History/Alerts, they were researched together with the Boolean Logic "OR".

(S3) and (S4) The same process was conducted with the other key concept, "nurses" and "nurs\*". The asterisk wildcard character (\*) was used to include alternative forms of words and plurals. Once these two concepts were researched, they were linked by "OR" in Boolean algebra.

The first two joint concepts (S1+S2), plus the last two (S3 + S4), were finally joined with an "AND" and created the last results (S5- i.e., all the results in the databases).

EndNote was used to manage bibliographies and references; within a combined library, the six databases were grouped into six smart groups. The duplicates were eliminated both with the EndNote program and manually. Also, unusable articles, such as those in a foreign language, were eliminated.

1) Vicarious Trauma: The term vicarious trauma is often interchangeably used with other terms such as compassion fatigue, secondary traumatic stress, and burn out, although those terms have different meanings, risks, developments, and outcomes. To broaden the scope of the review and capture research on vicarious trauma that may not have explicitly used the term, the search strategy employed the aforementioned terms when searching through various databases. This approach aimed to encompass a wider range of studies related to indirect trauma and identify relevant research where vicarious trauma was implied but not explicitly specified.

2) Nursing: As there is little literature about nurses working in addiction services, nurses from other disciplines (such as Oncology Nurses, Mental Health Nurses, and Sexual Assault Nurse Examiners) were considered. In addition to electronic searches, a manual search was used to retrieve some articles, but only those relevant to nurses were included.

3) Addiction: During a trial search of articles, it was noted that by using the keyword addiction or dependencies, the results were so few that it would not have been possible to proceed with the literature review. Nurses working in addiction services do not use specific terminology to define their professional speciality, although some articles refer to this profession as "addiction nurses" (Clancy *et al.*, 2019), but it could be a misleading term. Given that the focus of this review is vicarious trauma among nurses who work in the addiction field, exploring this area was pertinent. Unfortunately, the researcher was unable to locate any research studies on vicarious trauma in European nursing literature within the field of addiction; therefore, the word addiction or its synonyms were not used in the databases.

The PRISMA flow diagram in figure 2.1 shows the steps utilised for this literature review with a systematic approach.

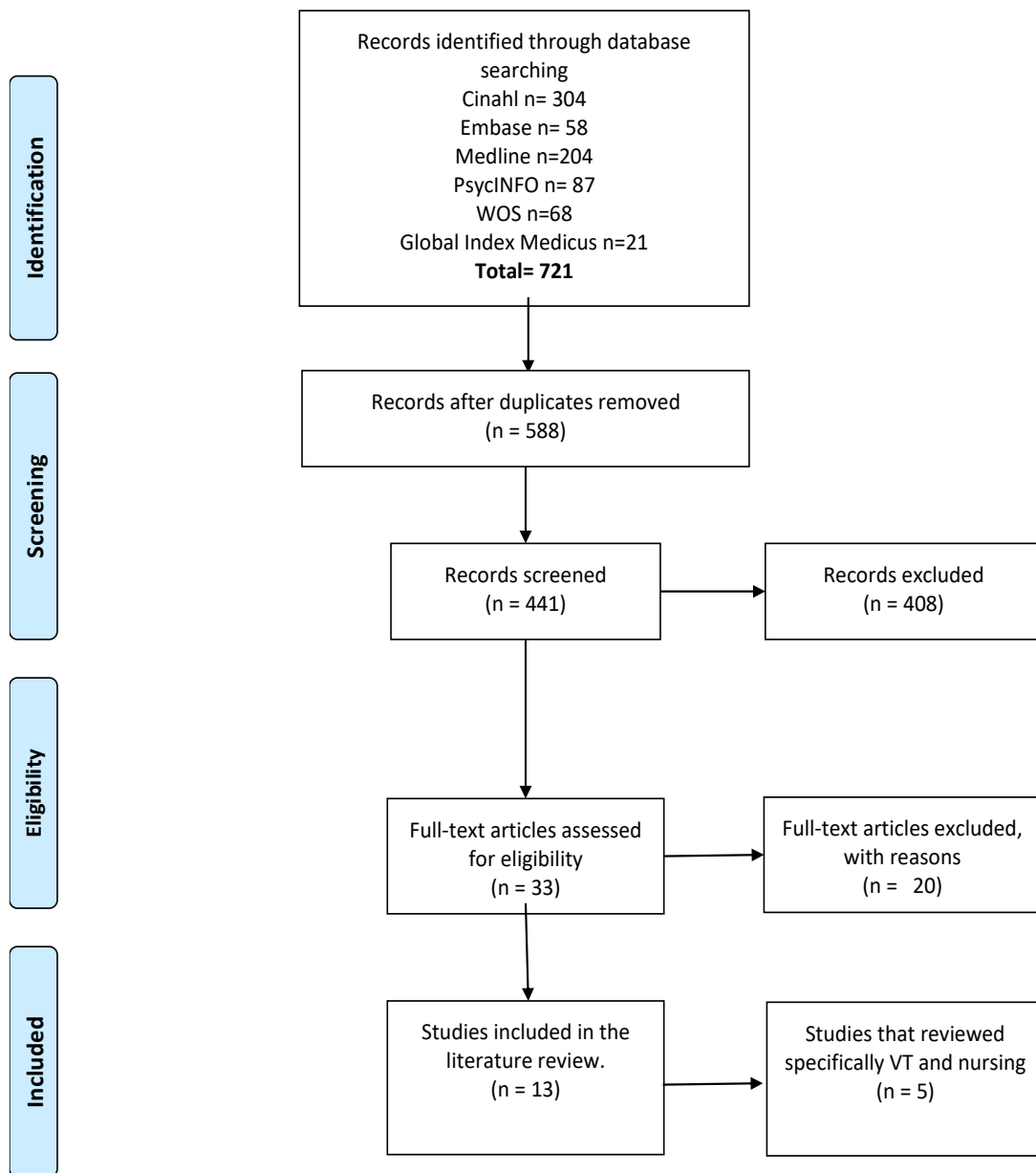


Figure 2.12 Prisma flow Diagram- Records identified through database searching.

### 2.3.2 Eligibility criteria

The literature search was restricted to articles published between 1990 to 2019, and only articles written in English were included.

Nurses who work in the addiction field have no officially defined name in Europe (i.e., counsellors are indicated as ‘addiction counsellors’ or psychiatrists as ‘addiction psychiatrists, etc.), although in many associations and articles nurses working in addiction services have been defined as "addiction nurses" (Hussein Rassool and Lind, 2000; Clancy

*et al.*, 2019). Therefore, the terms of the search were extended to any nurse specialisation and all health professions who have contact with traumatised patients. Below Table 2.2 represents the inclusion and exclusion criteria.

Table 2.1 - *Inclusion and exclusion criteria.*

Inclusion Criteria	Exclusion Criteria
Must use the term "vicarious trauma"	Studies examining physical trauma or body injury and/or Studies focusing on primary trauma
Focus on nurses in any nursing specialty	Articles not written in English
Investigate the positive effects of VT	Articles unrelated to nursing practice or vicarious trauma
Peer-reviewed articles	Associated terms often used interchangeably with VT in articles were omitted. These include compassion fatigue, secondary traumatic stress, and burnout.
	Theses and dissertations

The following table presents the thirteen papers incorporated into this literature review. It includes information such as the authors, title, publication year, journal, and a succinct summary of each paper.

Table 2.2 Bibliographic table of the 13 studies included in the literature review.

Authors	Title	Year	Sample	Journal	Summary	Key Concepts
1. Beaune, L., Muskat, B., & Anthony, S. J.	The emergence of personal growth amongst healthcare professionals who care for Dying Children	2017	25 healthcare professionals who care for dying children, primarily women aged 20 to 60.	Palliative and Supportive Care	This article examines personal growth among healthcare professionals caring for children with life-limiting illnesses, addressing challenges like compassion fatigue. The study involved 25 healthcare professionals, primarily women aged 20 to 60. Results indicate that all participants experienced personal growth, with three consistent dimensions: altered life perspectives, enhanced personal resources, and benevolence. This understanding may lead to innovative approaches in healthcare organisations to combat compassion fatigue and enhance the well-being of both providers and the children and their families.	It primarily focuses on compassion fatigue. However, it also examines VT key concepts: -Altered Life Perspectives -Enhanced Personal Resources -Benevolence
2. Garner L.	Creative Expression as Self-Care for Nurses Exposed to Vicarious Trauma	2017	Nurses	Beginnings (American Holistic Nurses' Association)	This article discusses how nurses can use creative expression for self-care when exposed to vicarious trauma. Holistic nursing emphasises integrating self-care into daily life. Healthcare professionals working with trauma survivors must safeguard their well-being. The article also highlights the psychological benefits of creative activities, which can positively affect mental and emotional health when used as a self-care strategy.	-Vicarious Trauma -Self-Care -Creative Expression -Holistic Nursing -Psychological Benefits -Mental and Emotional Health
3. Hartley, Heather, RN,	Concept Review: Second	2018	Perioperative Advanced Practice Nurses	ORNAC Journal	This concept review delves into second traumatisation and the role of perioperative advanced practice nurses. It highlights how	-Second Traumatisation -Medical Errors

Authors	Title	Year	Sample	Journal	Summary	Key Concepts
B.ScN., M.ScN.	Traumatisation and the Role of a Perioperative Advanced Practice Nurse				clinicians can be affected by critical events, such as medical errors, leading to personal and professional destabilisation. Although recognised in various fields, this phenomenon has received limited attention in the perioperative context. The review explores the experiences of perioperative clinicians by examining vicarious traumatisation and second victimisation.	-Personal and Professional Destabilisation -Vicarious Traumatisation - Second Victimisation
4. Maier, S. L.	The emotional challenges faced by Sexual Assault Nurse Examiners: “er nursing is stressful on a good day without rape victims.”	2011	Sexual Assault Nurse Examiners (SANEs)	Journal of Forensic Nursing	This article explores the emotional challenges faced by Sexual Assault Nurse Examiners (SANEs) when caring for rape victims. Qualitative research with 39 SANEs reveals that many grapple with vicarious trauma, emotional demands, and burnout. Over half of them have experienced vicarious trauma, and 46% reported burnout to some extent. To cope, SANEs rely on support from family, colleagues, program coordinators, and engage in relaxing activities.	-Vicarious Trauma -Emotional Demands -Burnout -Coping Strategies -Support Systems
5. Manning-Jones, S., de Terte, I., & Stephens, C.	The relationship between vicarious posttraumatic growth and secondary traumatic stress among health professionals	2017	Healthcare Professionals (Nurses, Psychologists, Counsellors, Social Workers, Medical Doctors)	Journal of Loss and Trauma	This study examines the link between vicarious posttraumatic growth (VPTG) and secondary traumatic stress (STS) among healthcare professionals. Limited research exists on this connection. The study, involving 365 nurses, psychologists, counsellors, social workers, and medical doctors, revealed a curvilinear relationship between VPTG and STS, primarily among psychologists. This relationship wasn't observed in other professions. The study's implications are discussed.	-Vicarious Posttraumatic Growth (VPTG) - -Secondary Traumatic Stress

Authors	Title	Year	Sample	Journal	Summary	Key Concepts
6. McGibbon, E., Peter, E., & Gallop, R.	An institutional ethnography of nurses' stress	2010	Nurses	Qualitative Health Research	This article examines the stress experienced by nurses, considering three main types: occupational stress, moral distress, and traumatisation. It highlights the need to incorporate contextual factors like gender and the nature of caregiving. Using institutional ethnography, the study explores how nurses' stress is socially organised and concludes with recommendations for addressing their stress more critically and contextually.	<ul style="list-style-type: none"> <li>-Occupational Stress</li> <li>-Moral Distress</li> <li>-Traumatisation</li> <li>-Contextual Factors (Gender, Nature of Caregiving)</li> <li>-Institutional Ethnography</li> <li>-Social Organization of Stress</li> </ul>
7. Newman, C., Eason, M., & Kinghorn, G.	Incidence of vicarious trauma in Correctional Health and Forensic Mental Health Staff in New South Wales, Australia	2019	Correctional Health and Forensic Mental Health Staff in New South Wales, Australia	Journal of Forensic Nursing	This study explores vicarious trauma among Correctional Health and Forensic Mental Health Staff in New South Wales, Australia. Most respondents experienced moderate to high levels of vicarious trauma but reported low psychological distress. Vicarious trauma was linked to an increased risk of posttraumatic stress disorder symptoms. Correctional health and FMH organisations should provide education and management programs for nurses. Workplace trauma exposure may increase vicarious trauma risk, but the relationship with personal trauma history is complex and varies in different studies.	<ul style="list-style-type: none"> <li>-Vicarious Trauma</li> <li>-Psychological Distress</li> <li>-Posttraumatic Stress Disorder Symptoms</li> <li>-Education and Management Programs</li> <li>-Workplace Trauma Exposure</li> <li>-Personal Trauma History</li> </ul>
8. Rice, H., & Warland, J.	Bearing witness: Midwives experiences of witnessing traumatic birth	2013	Midwives	Women and Birth	This article examines how witnessing traumatic births affects midwives, a topic with limited research. The study involved ten midwives, revealing common themes such as the conflict between birthing philosophies, self-doubt, and empathy for the women. It highlights the	<ul style="list-style-type: none"> <li>-Witnessing Traumatic Births</li> <li>-Emotional Impact</li> <li>-Conflict between Birthing Philosophies</li> </ul>

Authors	Title	Year	Sample	Journal	Summary	Key Concepts
					emotional challenges midwives face in such situations, emphasising the need for further research and support to help them cope with witnessing traumatic births.	-Self-Doubt -Empathy for Women -Emotional Challenges -Need for Further Research and Support
9. Robinson, J. R., Clements, K., & Land, C.	Workplace stress among psychiatric nurses	2003	Psychiatric Nurses in Manitoba, Canada	Journal of Psychosocial Nursing and Mental Health Services	This study examines workplace stress among psychiatric nurses, specifically looking at vicarious trauma and burnout. The research involved registered psychiatric nurses in Manitoba, Canada. The findings show high levels of emotional exhaustion (burnout) but also high levels of personal accomplishment. No significant differences were observed in vicarious trauma scores compared to norms for mental health professionals. The article also discusses predictors of burnout and vicarious trauma, emphasising the importance of strategies to reduce workplace stress for the benefit of nurses, patients, and health services.	-Workplace Stress -Vicarious Trauma -Burnout -Emotional Exhaustion -Personal Accomplishment -Predictors of Burnout and Vicarious Trauma -Strategies to Reduce Workplace Stress
10. Sabo, B.	Reflecting on the concept of Compassion Fatigue	2011	Nurses	OJIN: The Online Journal of Issues in Nursing	This article discusses Compassion Fatigue and its impact on nursing, particularly in high-stress specialties like intensive care, mental health, paediatrics, and oncology. The article raises questions about the continuum of occupational stress, the relationship between compassion fatigue, burnout, and vicarious traumatization,	-Compassion Fatigue -Impact on Nursing High-Stress Specialties (Intensive Care, Mental Health,

Authors	Title	Year	Sample	Journal	Summary	Key Concepts
					and the risk of developing the latter if compassion fatigue remains unresolved. Case examples are provided to illustrate these points.	Paediatrics, (Oncology) -Continuum of Occupational Stress -Relationship between Compassion Fatigue, Burnout, and Vicarious Traumatization -Risk of Developing Vicarious Trauma -Case Examples
11. Sabo, B. M.	Adverse psychosocial consequences: Compassion fatigue, Burnout and vicarious traumatization: Are nurses who provide palliative and haematological cancer care vulnerable?	2008	Nurses in Palliative and Haematological Cancer Care	Indian Journal of Palliative Care	This article explores the psychosocial challenges, including compassion fatigue, burnout, and vicarious traumatization, faced by nurses in palliative and haematology cancer care. The work environment's significant impact on individuals' well-being is evident, particularly among healthcare professionals dealing with patients in pain and suffering. The article investigates the implications of these challenges on nursing practice in palliative and haematology cancer care.	-Adverse Psychosocial Consequences -Compassion Fatigue -Burnout -Vicarious Traumatization -Impact of Work - Environment on Well-being -Implications on Nursing Practice

<b>Authors</b>	<b>Title</b>	<b>Year</b>	<b>Sample</b>	<b>Journal</b>	<b>Summary</b>	<b>Key Concepts</b>
12. Sinclair, H. A. H., & Hamill, C.	Does vicarious traumatisation affect oncology nurses? A literature review	2007	Oncology Nurses	European Journal of Oncology Nursing	This literature review investigates whether vicarious traumatisation affects oncology nurses, who often experience high stress levels. While terms like burnout and compassion stress are used to describe this stress, vicarious traumatisation is a concept from the mental health field that describes how empathetic engagement with patients' traumatic experiences can negatively impact a therapist's well-being. The article suggests that oncology nurses may also be at risk of vicarious traumatisation, but empirical research on this concept in their field is limited. The review calls for further exploration of this issue in oncology nursing.	-Vicarious Traumatisation -Burnout -Compassion Stress -Empathetic Engagement with Patients' Traumatic Experiences -Risk of Vicarious Traumatisation -Limited Empirical Research
13. Taylor, J., Bradbury-Jones, C., Breckenridge, J. P., Jones, C., & Herber, O. R.	Risk of vicarious trauma in nursing research: A focused mapping review and synthesis	2016	Nursing Research	Journal of Clinical Nursing	This article conducts a review of the risk of vicarious trauma in nursing research, specifically focusing on how researchers address it. Despite the long-standing concern about vicarious trauma in nursing practice, especially in areas involving abuse/violence and death/dying, this review reveals that it is often not adequately accounted for in research. The proposed conceptual framework emphasises the importance of addressing vicarious trauma risks in research to design ethical and protective studies. This is crucial for clinical practice to minimise harm to staff, although it's currently not well-considered in clinically important research.	-Risk of Vicarious Trauma -Inadequate Accounting in Research -Minimising Harm to Staff -Consideration in Clinically Important Research

### **2.3.3 Method and Results**

The thematic analysis process employed in this systematic review was structured and guided by the clearly established aims and objectives of the research. A deductive approach was utilised, focusing on predefined parameters to explore pertinent themes within the nursing profession. Specifically, the analysis aimed to examine the prevalence of VT in relevant literature, identify associated risk factors, analyse coping mechanisms employed by nurses, understand potential consequences of experiencing VT, and evaluate the influence of organisational leadership on VT within nursing contexts.

Above mentioned keywords were used in database searches, leading to the selection of 13 papers for inclusion in the review, as indicated by the PRISMA chart. Subsequently, a thematic analysis was conducted manually, wherein identified themes were color-coded for clarity and ease of interpretation. Themes related to the negative consequences of VT were coded green (and also the positive consequences), while risk factors were coded red, coping mechanisms blue, and leadership yellow. Additionally, the thematic analysis highlighted gaps in the existing research, such as the absence of studies focusing on addiction nurses and the lack of specific tools to measure VT among nurses. This process of thematic analysis allowed for a comprehensive understanding of VT and its implications within the nursing profession, presenting a nuanced exploration of the topic based on the synthesised findings from the selected literature. The table provided outlines the themes derived from the coded segments, along with the papers associated with each theme, and a summary of the key points highlighted within each paper corresponding to the respective code.

Table 2.2.1- Themes and papers and coding form the systematic review.

Theme	Papers where the theme was extracted	Highlights from the Paper
THEME ONE "Addiction" Nurses and VT	Beaune <i>et al.</i> , 2017	The paper discusses the negative experiences of paediatric healthcare providers caring for children with life-limiting illnesses, including coping with their death and the challenges that arise in the workplace.
	Maier, 2011	More SANEs (sexual assault nurses examiners) reported experiencing vicarious trauma than burnout, as indicated in the Comparison between vicarious trauma and burnout section.
	Hartley, 2018	Trauma is inherent in the lived experience of perioperative clinicians. Events such as medical errors, traumatic cases, or unanticipated patient outcomes can lead to second traumatisation. Clinicians, including nurses, are vulnerable to personal and professional destabilisation following exposure to critical events. Vicarious traumatisation and second victimisation are concepts relevant to perioperative care.
	Garner, 2017	Discussion of nurses' exposure to vicarious trauma. Importance of integrating self-care into nursing practice due to exposure to trauma survivors.
	McGibbon, <i>et al.</i> , 2010	Nurses endure emotional distress from their own experiences and that of patients and parents, reflecting their 24-hour presence in patient care. The burden of responsibility blurs boundaries between nursing and medicine, compounded by the stress of their human connections. Bodily caring poses additional challenges, including articulating and acknowledging stress, and the gendered subtext of its invisibility.
	Robeson et al	The paper discusses the serious manifestations of workplace stress, including vicarious trauma and burnout, among registered psychiatric nurses (RPNs). It emphasises the detrimental effects of vicarious trauma on healthcare professionals due to exposure to clients' traumatic experiences.
	Rice & Warland, 2012	Traumatic stress from witnessing and working with traumatised clients has been identified in caring professionals such as nurses, social workers, and emergency department personnel. Midwives, as caring professionals, may experience traumatic stress from witnessing traumatic births, similar to other caring professions.

Theme	Papers where the theme was extracted	Highlights from the Paper
	Newman, 2019	Correctional health and FMH nurses and other health staff working in these environments are at risk of experiencing VT due to their exposure to traumatic material in their professional roles. Most respondents had moderate or high levels of VT, indicating a significant impact on their psychological well-being. Correctional health and FMH staff have, or are at risk of developing, VT and associated psychological distress.
	Sabo, 2011	Research on the psychosocial health and well-being of nurses. Compassion fatigue as a form of occupational stress experienced by nurses. Lack of theoretical clarity underlying compassion fatigue. Questions regarding the role of empathy and empathic response in the development of compassion fatigue.
	Sabo, 2008	Nurses working in palliative or haematological/oncology care units may experience adverse consequences such as compassion fatigue, burnout, and vicarious traumatization due to repeated exposure to pain and suffering.
	Manning-Jones <i>et al.</i> , 2017	Vicarious traumatic exposure measured by the average number of hours spent with trauma clients per week. Nurses are one of the groups included in the study sample. Limited and inconsistent research regarding the relationship between vicarious posttraumatic growth (VPTG) and symptoms of secondary traumatic stress (STS) among nurses Implications of results discussed for nurses and their experiences with vicarious traumatic exposure
	Taylor <i>et al.</i> , 2016	Vicarious trauma (secondary traumatic stress) has been recognised as a concern in nursing practice. Nurses engaging in topics such as abuse/violence and death/dying are at particular risk of vicarious trauma. Challenges associated with sensitive issues research have been discussed in the nursing literature. Researchers dealing with topics like abuse/violence and death/dying are at a higher risk of vicarious trauma.
	Sinclair & Hamill, 2007	This paper highlights the potential existence of VT in oncology nurses due to their exposure to trauma through their work. It emphasises the psychological impact on nurses, such as carrying negative emotions home from work and the risk of psychological withdrawal from patients.
THEME TWO	Beaune <i>et al.</i> , 2017	This paper highlights concerns about mental health risks, organisational stress, and potential negative impacts on personal relationships among healthcare professionals working with seriously ill children.

Theme	Papers where the theme was extracted	Highlights from the Paper
"Risk Factors"	McGibbon <i>et al.</i> , 2010	Exposure to workplace trauma and difficulty disengaging, especially for nurses with personal connections to patients. Emotional involvement in patients' lives contributes to stress and coping challenges.
	Rice & Warland, 2012	Midwives working within a medical model of care may experience conflict between their natural philosophy of birth and the reality of medical interventions. Witnessing traumatic births can lead to feelings of powerlessness, guilt, and responsibility among midwives.
	Hartley, 2018	Critical events such as medical errors, traumatic cases, or unanticipated patient outcomes. Perioperative environments are fraught with traumatic events, compounded by the invasive nature of procedures. Intraoperative deaths and medical errors are significant risk factors.
	Sabo, 2011	Factors associated with the onset of burnout, compassion fatigue, and vicarious traumatisation. Work-life issues such as lack of resources, leadership, and shared values. Duration of the relationship with patients. Level of experience and individual characteristics of the nurse (e.g., 'saviour syndrome'). Patient characteristics. Work environment factors such as workload and limited resources. Nature of the work with high demand populations (e.g., paediatric oncology, critical care, mental health).
	Manning-Jones <i>et al.</i> , 2017	Negative consequences of vicarious traumatic exposure, such as secondary traumatic stress (STS). Direct traumatic exposure measured by the Traumatic Stress Schedule (TSS). Experience working in the current field and direct exposure to traumatic events considered as control variables in statistical analysis
	Sabo, 2008	Factors contributing to the development of compassion fatigue, burnout, and vicarious traumatisation among nurses include poor collaborative work environments, lack of social support, workload increase, and tensions between personal beliefs and the healthcare system's philosophy. Individual characteristics, social and community context, physical, organisational, structural, and contextual work environment, and work-related attitudes are identified as potential contributors to vicarious traumatisation.

Theme	Papers where the theme was extracted	Highlights from the Paper
	Newman <i>et al.</i> , 2019	Almost 60% of the sample indicated having a personal trauma history, which may contribute to their vulnerability to VT. Exposure to distressing material, including detailed accounts of violent crimes, increases the risk of developing VT. Rates of personal trauma history in professionals who have worked with traumatised clients vary, making it challenging to establish a clear association between trauma history and VT.
	Robinson <i>et al.</i> , 2003	The study examines predictors of burnout and vicarious trauma among RPNs, which can be considered as risk factors. Factors such as workplace stressors (e.g., too much responsibility, frequent interruptions), high vicarious trauma scores, and many hours of trauma work per week are associated with high levels of emotional exhaustion.
	Sinclair & Hamill, 2007	This paper discusses how nurses with better empathic abilities may be at a higher risk of vicarious traumatization. It also mentions how the demanding workload and lack of time off for education sessions contribute to stress and potentially increase the risk of vicarious traumatization.
	Maier, 2011	The paper suggests that sexual victimization could potentially be a risk factor. Exposure to horrific accounts of rape, treating child victims or victims of violent rapes, and personal experiences with rape are identified as risk factors for vicarious trauma. Long hours of work, lack of emotional breaks, and feeling compelled to cover extra shifts contribute to burnout among SANEs.
	Garner, 2017	Cumulative exposure to stories of abuse and suffering impacting personal health and wellness. Need for intentional buffering of the effects of vicarious trauma.
	Taylor, 2016	Topics such as violence/abuse and bereavement are identified as risk factors for vicarious trauma. Individuals involved in sensitive issues research, such as interpreters, transcriptionists, and researchers themselves, are at risk of vicarious trauma. The emotional demands placed on researchers engaging with sensitive or distressing topics are highlighted.

Theme	Papers where the theme was extracted	Highlights from the Paper
THEME THREE Negative and Positive VT Consequences	Beaune <i>et al.</i> , 2017	The paper discusses both negative consequences, such as stress, depression, burnout, and compassion fatigue, as well as positive outcomes, including personal growth and enhanced professional relationships, among PHCPs.
	Rice & Warland, 2012	Negative consequences include feelings of powerlessness, guilt, and responsibility, as well as questioning the authenticity of their practice. Positive consequences may include learning opportunities and a deepened understanding of the woman's experience.
	Hartley, 2018	Negative consequences include emotional distress, physical symptoms, decreased job satisfaction, and potential for leaving the profession. Positive outcomes include gaining perspective, becoming enlightened, and increased motivation for improvement. Clinicians may experience vicarious resilience through meaningful engagement with traumatic experiences.
	McGibbon, <i>et al.</i> , 2010	Bodily caring inflicts emotional tolls, complicating coping with patient deaths and traumatic situations.
	Garner, 2017	Impact on personal health and wellness due to exposure to trauma stories.
	Manning-Jones <i>et al.</i> , 2017	Negative consequences include secondary traumatic stress (STS), which manifests as symptoms similar to PTSD. Positive consequences include vicarious posttraumatic growth (VPTG), characterised by positive changes to the self, interpersonal relationships, and life philosophy.
	Maier, 2011	The Negative and Positive Consequences of VT section emphasises the negative consequences of vicarious trauma, such as depression and burnout, while also highlighting positive coping mechanisms employed by SANEs.
	Robinson <i>et al.</i> , 2003	The paper addresses the high levels of emotional exhaustion as negative consequences in working with traumatised patients. It also highlights the significant sense of personal accomplishment among RPNs.

Theme	Papers where the theme was extracted	Highlights from the Paper
	Sinclair & Hamill, 2007	Negative consequences of vicarious traumatisation include the potential for nurses to leave the field of oncology if unaddressed. Positive consequences may include increased awareness and acceptance of vicarious traumatisation as a normal response to working with trauma indirectly.
	Sabo, 2011	Negative consequences: emotional distress, interpersonal withdrawal, changes in beliefs, expectations, and assumptions, 'witness guilt'.
	Sabo, 2008	Adverse consequences of caring work include emotional exhaustion, depersonalization, reduced personal accomplishment (burnout), compassion fatigue, and vicarious traumatisation. Nurses may experience intrusive imagery, alterations in trust, loss of independence, and increased arousal as a result of vicarious traumatisation.
	Newman, 2019	The impacts of VT include symptoms of avoidance, intrusion, and hyperarousal, leading to increased reports of psychological distress. Correctional health and FMH nurses and staff are at risk of experiencing VT due to their exposure to traumatic material, highlighting the need for preventive measures. Negative consequences of VT include increased psychological distress, symptoms of PTSD, and occupational challenges such as absenteeism and reduced productivity. Positive consequences may include personal resilience and psychological growth, although these are less prevalent and may require targeted interventions to foster.
THEME FOUR Coping Mechanisms	Beaune <i>et al.</i> , 2017	Coping strategies utilised by nurses caring for dying children. Strategies and barriers to effective communication about end-of-life issues among healthcare professionals.
	Rice & Warland, 2012	Midwives engage in reflection and analysis of their practice to learn from traumatic experiences and improve future care. Despite the emotional distress, midwives' concern is primarily for the well-being of the woman and her family rather than personal upset.
	McGibbon, <i>et al.</i> , 2010	personal relationships heighten stress levels, while emotional connections with patients and families add complexity.

Theme	Papers where the theme was extracted	Highlights from the Paper
	Garner, 2017	Discussion of creative expression as a therapeutic self-care strategy. Crafting as a means to induce relaxation, relieve stress, and improve psychological well-being. Personal reflection on the use of crafting as a coping mechanism for nurses. Discussion of the therapeutic benefits of creative activities such as art, storytelling, painting, writing, etc.
	Hartley, 2018	Rapid-response programs and interventions, such as the forYOU program, can help mitigate the effects of second traumatisation. APNs can mediate the occurrences and effects of second traumatisation through tailored therapeutic interventions and preventative programs.
	Sabo, 2011	Strategies to address burnout, compassion fatigue, and vicarious traumatisation. Importance of self-care and supportive work environments. Identifying protective factors within the work environment and individual coping mechanisms.
	Maier, 2011	Coping Mechanisms and Protective Factors describe various coping strategies employed by SANEs, such as seeking social support, engaging in self-care activities, and participating in meetings to decompress. These coping mechanisms serve as protective factors against the negative effects of vicarious trauma and burnout.
	Sinclair & Hamill, 2007	Various supportive and educational strategies for nurses, such as clinical supervision, peer support groups, and debriefing sessions, are suggested to cope with and prevent vicarious traumatisation. The importance of organisations providing support and education to address vicarious traumatisation among nurses is emphasised.
	Newman, 2019	Exploring the factors that predict psychological distress associated with VT in correctional health and FMH staff populations is recommended. Psychological resilience and positive psychological growth may mitigate the impact of VT on individuals, highlighting the importance of fostering resilience among staff.
	Taylor <i>et al.</i> , 2016	Strategies to anticipate, prevent, identify, and address vicarious trauma in research are emphasised. The importance of managing risks of vicarious trauma and designing ethical and protective research is highlighted. Suggestions for incorporating the issue of vicarious trauma into reporting guidelines and checklists are provided.

Theme	Papers where the theme was extracted	Highlights from the Paper
THEME FIVE Leadership	Beaune <i>et al.</i> , 2017	The paper mentions inadequate support within healthcare organisations, including the lack of opportunity and time for self-care among PHCPs. This aligns with the theme of organisations and leadership.
	Sabo, 2011	Role of organisations and leadership in supporting the well-being of healthcare professionals. Impact of organisational changes on nurses' workload, stress levels, and well-being. Strategies for organisational support and intervention implementation.
	Garner, 2017	Discussion of holistic nursing practice and the importance of self-care for healthcare professionals. Implications of creative expression for holistic nursing practice.
	Hartley, 2018	The APN role can involve leading initiatives to support clinicians affected by second traumatisation. Embedding interventions in perioperative programs can lead to cultural changes and improved support for affected staff.
	Maier, 2011	Paper highlights the importance of organisational support and leadership in addressing the challenges faced by SANEs, particularly regarding follow-up care for victims.
	McGibbon, <i>et al.</i> , 2010	Hospital workload systems trivialise nurses' work, overlooking mutual support among colleagues and mediating stress perception.
	Newman <i>et al.</i> , 2019	Limited availability and uptake of clinical supervision may contribute to high levels of VT, suggesting the need for better support mechanisms. Correctional health and FMH organisations have a responsibility to ensure awareness of VT effects among nurses and provide opportunities for education and management programs. Workplace factors such as cramped environments, security regulations, social isolation, and role ambiguity exacerbate the effects of VT. Interventions need to be embedded within an organisational culture that values supporting correctional health and FMH nurses in their work with traumatised persons. Provision of clinical supervision and support can help reduce the impact of VT on staff, indicating a need for organisational support mechanisms.
	Sabo, 2008	The workplace or organisational environment plays a significant role in the development of stress and burnout among nurses, emphasising the importance of supportive work environments and organisational policies.

Theme	Papers where the theme was extracted	Highlights from the Paper
	Taylor <i>et al.</i> 2016	The need for organisations to consider vicarious trauma in research into clinically important topics is stressed. A proposed framework allows for consideration of vicarious trauma risks so that precautionary measures can be implemented to minimize harm to staff.
	Robinson <i>et al.</i> , 2003	Workplace Conditions and Predictors of Burnout- Additionally, the paper examines various workplace conditions and predictors associated with emotional exhaustion and personal accomplishment among RPNs.
	Manning-Jones <i>et al.</i> , 2017	Results discussed implications for health professionals and organisations supporting trauma survivors.
	Sinclair & Hamill, 2007	Strategies proposed for coping with vicarious traumatisation include organisational interventions such as implementing clinical supervision, peer support groups, and education sessions. The role of ward managers and organisations in facilitating formal supportive strategies for nurses is discussed.
THEME SIX No Reliable Tool	Sinclair & Hamill, 2007	The paper mentions the absence of a standardised tool to measure vicarious traumatisation and the need for a generic and adaptable tool for various professions.
	Beaune <i>et al.</i> , 2017	Discussion of the limitations of the study, including sample characteristics and data collection methods.
	Robinson <i>et al.</i> , 2003	While the paper doesn't directly address the lack of a reliable tool to measure vicarious trauma in nursing, it does provide insights into the prevalence, distribution, correlates, and predictors of vicarious trauma among RPNs, which indirectly highlights the need for reliable assessment tools.
	Manning-Jones <i>et al.</i> , 2017	Limited and inconsistent research regarding the relationship between VPTG and STS.

Theme	Papers where the theme was extracted	Highlights from the Paper
		Lack of consensus among studies investigating the relationship between posttraumatic growth and posttraumatic stress among populations vicariously exposed to traumatic events.
	McGibbon, <i>et al.</i> , 2010	Invisibility of certain aspects of bodily caring in workload measurement systems adds to the challenge.
	Maier, 2011	There is currently no reliable tool specifically designed to measure vicarious trauma and burnout among SANEs,
	Hartley, 2018	While concepts such as compassion fatigue, burnout, and PTSD are related, they are not equivalent to the vicarious and traumatic scope of second traumatisation. Second traumatisation is an individualized phenomenon influenced by context, time, experiences, and personal characteristics.
	Taylor <i>et al.</i> 2016	The issue of vicarious trauma is not extensively discussed in empirical nursing research literature.
	Sabo, 2008	There is a lack of theoretical clarity surrounding compassion fatigue and vicarious traumatisation.
	Newman, 2019	The only reliable predictor of VT is exposure to traumatic material, underscoring the importance of addressing workplace factors and providing adequate support for staff exposed to such material.

## 2.4 Literature Review Findings

Several important findings resulted from a thorough assessment of the literature, shedding light on the complex features of vicarious trauma in the field of nursing. These findings can be grouped into the following themes:

1. **THEME ONE: "Addiction" Nurses and VT** - The evidence indisputably indicates that vicarious trauma is a real and serious risk that nurses face in their professional lives, although it has been overlooked within the addiction area. Beaune et al. (2017) discuss the experiences of paediatric healthcare providers caring for children with life-limiting illnesses, highlighting the challenges they face, including coping with patient deaths and workplace stress. Maier (2011) emphasises that sexual assault nurses examiners (SANEs) often experience vicarious trauma due to exposure to traumatic accounts of sexual victimisation. Nurses in various specialties, such as perioperative care (Hartley, 2018) and correctional health (Newman, 2019), are also at risk of experiencing vicarious trauma due to their exposure to trauma through their work.
2. **THEME TWO: Risk Factors** - The literature provides a detailed list of common risk factors for vicarious trauma. Identification of these factors allows for a deeper understanding of the situations and conditions that lead to the development and exacerbation of VT in nurses. These include exposure to traumatic events in the workplace (McGibbon et al., 2010), cumulative exposure to stories of abuse and suffering (Garner, 2017), and personal trauma history (Newman et al., 2019). Factors such as poor work environments, high workload, and personal characteristics of nurses also play a role (Sabo, 2011; Robinson et al., 2003).
3. **THEME THREE: Negative and Positive VT Consequences** - The literature review also highlights the dual nature of vicarious trauma, emphasising both the negative repercussions and potential benefits. Negative consequences include emotional distress, burnout, and symptoms similar to PTSD (Manning-Jones et al., 2017; Sabo, 2011). However, there can also be positive outcomes, such as personal growth and increased resilience (Beaune et al., 2017; Newman, 2019).

4. **THEME FOUR: Coping Mechanisms** - The literature review also reveals various coping strategies employed by nurses in response to vicarious trauma. These include seeking social support, engaging in self-care activities, and participating in reflective practices (Rice & Warland, 2012; Maier, 2011). Organisational support, such as clinical supervision and peer support groups, is also crucial in helping nurses cope with vicarious trauma (Sinclair & Hamill, 2007).
5. **THEME FIVE: Leadership** - The literature underscored the pivotal role of organisational leadership in mitigating and addressing vicarious trauma. Organisational support and leadership are essential in addressing vicarious trauma among nurses. Effective leadership can create supportive work environments and implement interventions to mitigate the effects of vicarious trauma (Sabo, 2011; Hartley, 2018). Nonetheless, inadequate support from healthcare organisations can exacerbate the challenges faced by nurses dealing with vicarious trauma (Beaune et al., 2017). However, no studies have been identified on leadership and vicarious trauma among nurses working in addiction services. This reveals a substantial gap in the existing literature regarding the relationship between leadership and vicarious trauma in this specific context.
6. **THEME SIX: No Reliable Tool** - Finally, the literature review reveals a significant gap in the availability of a reliable and valid instrument specifically tailored to measure vicarious trauma in the nursing field. Despite the prevalence of vicarious trauma among nurses, there is a lack of reliable tools to measure its impact accurately. This poses challenges in identifying and addressing vicarious trauma in nursing practice (Sinclair & Hamill, 2007). Future research and development of standardised tools are needed to better understand, and support nurses affected by vicarious trauma.

In the following paragraphs, the research will delve deeper into each of the important results drawn from the literature review, expanding on the findings and their implications for understanding and addressing vicarious trauma in the nursing field.

## 2.5 Definition of Vicarious Trauma

Before exposing the findings of the literature review organised into themes, it is beneficial to provide a description of vicarious trauma. The impact and effects of trauma have been extensively studied and researched among patients, but less attention has been given to workers who provide care to these traumatised individuals. Over the past three decades, it has been demonstrated that healthcare professionals can experience a range of both positive and negative emotions in their work (McCann and Pearlman, 1990; Cohen & Collens, 2013; Todaro-Franceschi, 2019).

One potential negative consequence of an individual's professional life is vicarious trauma. One of the earliest descriptions of how indirect trauma clinically affects others was provided by Shatan (1973). After treating Vietnam veterans, he observed that "...having nightmares, ...being unable to sleep, ... unable to talk normally to other people for days or weeks" (p. 651). He recognised that professionals could undergo fundamental changes as a result of their work.

The concept of vicarious trauma was later conceptualised by McCann and Pearlman (1990) as part of the Constructivist Theory of Self Development (CSDT). The CSDT aims to integrate psychoanalytic theories, such as the Psychology of the Self and Object Relationships, with cognitive theories of Social Cognition, creating a dynamic framework for understanding the experiences of trauma survivors and those who care for them (McCann *et al.*, 1990). McCann and Pearlman proposed that individuals construct their realities through the development of schemas, cognitive structures used to interpret events in their environment (Robinson *et al.*, 2003). Molnar *et al.* (2017) explained that these changes reflect a transformation in a person's worldview. In other words, if an individual's worldview has consistently been positive and meaningful, exposure to negative events through the trauma experiences of others can lead to a sudden awareness of malevolent and hostile events. While these cognitive interpretations through schemas are typically adaptive and protective, they can also result in irrational perceptions among professionals exposed to someone else's trauma (van der Merwe and

Hunt, 2018). These negative changes, similar to symptoms of primary trauma (Branson, 2018), manifest in alterations across five areas of needs: safety, dependency or trust, power, esteem, and intimacy (McCann and Sakheim, 1988; Trippany *et al.*, 2004; Sansbury, Graves and Scott, 2014). According to Peled-Avram (2017), vicarious trauma has the potential to disrupt various aspects of an individual's well-being, such as self-capacities, ego resources, and their overall frame of reference. This disruption may include alterations in identity, worldview, and belief systems. Consequently, these changes may result in disorientation, challenges in interpersonal relationships, difficulty in managing negative emotions and decision-making, a limited understanding of therapeutic processes, and a reduced ability to empathise with patients. Pearlman (1999) emphasised that vicarious trauma is "neither a reflection of therapist inadequacy nor a result of client toxicity or badness" (p. 52). However, some studies did not acknowledge disruption in the belief system as a consequence of trauma exposure, yielding inconclusive results regarding changes in cognition (Cornille and Meyers, 1999). Additionally, some authors have described vicarious trauma as a "contagious and malignant process" that can be transmitted not only from patients to professionals but also among healthcare professionals themselves (Robinson *et al.*, 2003; Boulanger, 2016).

Before the recognition of vicarious trauma, Danieli (1988) examined the emotional response, referred to as "countertransference themes," experienced by psychotherapists working with Holocaust survivors. Subsequently, Pearlman and McCann developed VT to study the effects of working with trauma.

### **2.5.1 Other Terminologies for VT**

The terminology used to explain the influence of professional life on healthcare professionals is a complex issue. As mentioned earlier, vicarious trauma specifically refers to the negative psychological and cognitive changes experienced by professionals as a result of witnessing indirect trauma (McCann and Pearlman, 1990). Unlike other terms, vicarious trauma is deeply rooted in the constructivist self-development theory by McCann and Pearlman (1990), and it has the potential to bring about lasting changes in the affected professional. However, the literature review has revealed nuances and

associations between vicarious trauma and other terms, such as secondary traumatic stress (STS), compassion fatigue (CF), emotional contagion, and empathy fatigue.

Secondary traumatic stress (STS), coined by Figley (1995), is primarily applicable to first responders, medical personnel, and members of the legal/correctional community (Branson, 2018). This term is used across diverse populations, including professionals who do not necessarily have an empathic relationship with patients (Branson, 2018). STS shares similar symptoms with post-traumatic stress disorder (PTSD), such as preoccupation with thoughts of patients outside of work, reexperiencing patients' traumas through dreams and flashbacks, hyperarousal, and hypervigilance (Knight, 2013; Branson, 2018). Figley later renamed STS as compassion fatigue (CF) to indicate its manifestation among nurses (Figley, 1995).

Compassion fatigue (CF) is a widely studied concept in the nursing field. Joinson (1992) initially explored this concept by focusing on nurses in the emergency department and observing a diminished ability to provide nurturing care. Figley (1995) further developed this concept, defining compassion fatigue as a decrease in the capacity to offer the same level of compassion and care to patients (Zadeh *et al.*, 2012). CF can develop in professionals working with any patient, and it is characterised by a loss of empathy towards patients (Collins and Long, 2003). Unlike vicarious trauma, CF is often considered a short-term response confined to therapy sessions (Harrison and Westwood, 2009).

Empathy fatigue, introduced by Stebnicki (1999), is a term that is less commonly used in the literature. It differs from other forms of fatigue or indirect trauma, as it occurs when the healthcare professional's own wounds are repeatedly revisited through the client's narratives of chronic illness, disability, trauma, grief, and loss (Stebnicki, 2007).

While these terms are sometimes used interchangeably, it is crucial to recognise and acknowledge their specific distinctions. Neglecting to use the appropriate term can have significant consequences, as described by Boulanger (2016). Failure to understand or acknowledge a prior trauma can inflict a "second injury" on survivors, leading to

secondary trauma caused by iatrogenic factors or the dismissal and invalidation of traumatic experiences by professionals, family members, or the general public.

### **2.5.2 Existing Literature on VT and Nurses Who Work in Addiction Services**

During the course of this literature review, it was noted that vicarious trauma has been analysed and measured in various professional domains and areas of expertise, but there was a paucity of studies concerning nurses working in addiction services. These studies have focused on VT among alcohol and other drug workers in Australia, clinicians working with refugees and torture victims, medical providers, psychotherapists working with incest survivors, psychiatric nurses, counsellors, clinical social workers, and others (Pearlman & Saakvitne, 1995; Adams *et al.*, 2001; Robinson, Clements, & Colleen, 2003; Sommer, 2008; Barrington & Shakespeare-Finch, 2013; Mařirean & Turliuc, 2013; Ewer *et al.*, 2015;). However, the extant literature fails to document the prevalence and risks of vicarious trauma among nurses working in the addiction services. One hypothesised reason for this oversight is the lack of a comprehensive description of the role of nurses working in addiction services.

The role of nurses working in addiction services is not clearly defined and often confusing. The typical terminology used to refer to nurses in this area is "addiction nursing" or "substance misuse/misuse nurse," primarily in the United States and Canada. However, research on "addiction nursing" tends to focus on the percentages of nurses affected by substance misuse, which can lead to misleading results. Consequently, the unique vulnerabilities and challenges faced by nurses working in addiction services, which may contribute to the experience of vicarious trauma, have not received adequate attention. Nurses working in addiction services are highly vulnerable to experiencing negative responses and emotions, and as a result, vicarious trauma. Therefore, it is important to consider the contextual background of the role of nurses in addiction services. Before exploring nurses' attitudes and therapeutic relationships with patients with substance misuse issues, it is imperative to understand the dynamics of this role, as it can impact the vulnerability of nursing staff to experiencing vicarious trauma.

## 2.6 THEME ONE – “Addiction” Nurses

Over the years, the role of nurses in addictions has evolved, but their role did not receive as much attention as the other specialised areas (Mumba and Snow, 2017). Highlighted by the findings of the literature review, no studies were found that specifically examined nurses working in addiction services. This phenomenon may stem from challenges highlighted by Mumba and Snow (2017), such as difficulties in recruiting nurses for addiction-related roles due to factors including the aging of the current workforce, burnout, restrictive regulations, inadequate reimbursement, and excessive documentation requirements.

In 2002, three organisations, the National Nurses Society on Addiction, the Consolidated Association of Nurses in Substance misuse, and the Drug and Alcohol Nursing Organisation joined the International Nurses Society on Addictions (IntNSA). Thanks to the work carried out by this organisation, nowadays, literature displays knowledge of nurses in the field of addictions and solidifies their roles in clinical practice, advocacy areas, and healthcare policy platforms (Mumba and Snow, 2017). Over the past 20 years, IntNSA reached out to nurses across the globe to understand and study what they are doing in their respective countries to fight addictions (Murphy-Parker, 2016).

The development of nursing practice in the addiction field in Ireland, has not been well documented (Clancy et al, 2019). General nurses, mental health nurses, intellectual disabilities nurses and midwives are working in drug and alcohol treatment centers, with no requirement on addiction. There is evidence that “addiction nurses” are employed across Europe, but there is no data available on numbers working either directly or indirectly with problematic substance use (Clancy et al, 2019). Hence, it’s concluded that any information on the actual number of nurses working in addiction services, on their educational preparation and on the purpose of their practice is only hypothetical (Clancy et al, 2019).

According to Clancy *et al.* (2019) the total number of registered nurses in the UK is 689,700 (includes midwives), in Ireland 35,000 and in the Netherlands 180,000. The estimated

number of nurses working in addictions in the UK is not known, but in Ireland there are between 55 and 200 nurses, compared to the Netherlands that sees circa 5,000 nurses working in addiction. There is apparently only one nurse who work as addiction advanced nurse practitioners in Ireland, where in the Netherlands there are circa 200 nurses.

The literature reviewed by Clancy *et al.* (2019) from across Europe highlights a significant concern regarding the lack of consistent and readily available addiction training, both in pre-qualifying and post-qualifying education levels. As has already been mentioned before, education is fundamental for nurses to play their role successfully. Unfortunately, there is no standard qualification for “addiction nurse” in Europe (Clancy *et al.*, 2019).

### **2.6.1 Nurses’ Attitudes Toward Patients with Substance Use Problems**

Difficulties faced by nurses working in addiction services have been considered in the past 20 years (Miller *et al.*, 2001; Naegle, 2015; Tierney, 2016; Daibes *et al.*, 2017), and through the literature review, it has been identified that many studies reported that nurses have a negative attitude towards patients with substance use problems (Miller *et al.*, 2001; Room 2005; Corrigan *et al.*, 2009; Morgan, 2014; van Boekel *et al.*, 2013; Tierney, 2016; Daibes *et al.*, 2017). However, nurses’ attitudes appear to be more positive than they were in the 1960s (Howard and Chung, 2000). There are different flaws and aspects that have been taken into consideration to understand where the main problem arises in the nursing practice in addiction services. Tierney (2016), described nurses’ negative behaviors and emotions towards patients with substance use disorders, including: intolerance, anger, distrust, powerlessness, anxiety, feelings of being manipulated by these patients, frustration, futility, and disappointment related to patient relapse and recidivism. Nurses also have ambivalent feelings of frustration and wanting to support and understand the suffering of patients (Tierney, 2016).

Another study expressed how healthcare professionals feel unable or unwilling to empathise with patients with substance use problems (McLaughlin *et al.*, 2006). Other findings showed that nurses were unmotivated to work with these patients’ group and reported low levels of satisfaction (Ford *et al.*, 2008). Van Boekel *et al.* (2013) identified some explanations for the negative attitudes of nurses towards patients with substance

use disorders. According to the study, “nurses described the care for patients who use illicit drugs as emotionally challenging and potentially unsafe” (van Boekel *et al.*, 2013; p.29). In a study by Deans and Soar (2005) nurses expressed that caring for people with substance misuse is complex and stressful, and they experienced frustration, resentment, and powerlessness. Nurses who work in addiction services were found to be more negative and punitive and had more authoritarian orientations toward patients with substance misuse than other groups of healthcare professionals (Howard and Chung, 2000). However, according to Tierney (2016), nurses’ attitude changed over the recent years, becoming more positive and less condemnatory.

Several factors may lead nurses to maintain these negative attitudes, including:

**Employment:** Employment methods and job descriptions for nurses working in this field are highly inconsistent and seriously flawed (Naegle, 2015). This could be viewed as an obstacle to the work and care service offered to this vulnerable class of patients that nurses are dealing with. According to Naegle (2015) in the USA, job descriptions for nurses working in addiction’s roles are not standard across facilities, and this lack of clarity about the knowledge and skills is common, contributing to an inconsistent understanding of nurses’ roles in addiction service.

**Stigma:** Nurses’ attitudes may reflect the social and cultural negative perceptions of patients with substance use disorder (Room 2005; Corrigan *et al.*, 2009; Daibes *et al.*, 2017). Stigmatisation on the nurses’ part, could result in treatment avoidance or interruption during relapse (Ball *et al.*, 2006; Eaton, 2004; Neale *et al.*, 2008; van Boekel *et.al*, 2013).

**Lack of education:** Nurses report that lack of knowledge, education or competence might increase negative responses in taking care of patients with addictions (Miller *et al.*, 2001; Chang and Yang, 2013; Tierney, 2016; Daibes *et al.*, 2017). These findings make it clear that nurses need to be more knowledgeable about patients with addiction to take care of patients effectively (Tierney, 2016). Moreover, although nurses might be aware of terminology such as compassion fatigue, burn out or vicarious trauma, they may not be

able to identify how these affect their own life or those of their colleagues (Todaro-Franceshi, 2019), making early recognition of vicarious trauma symptoms or its possible risk factors difficult.

Lack of hope: Some studies reported that nurses expressed a lack of hope of curing patients with substance misuse, characterising them as “shameless” and “irresponsible” (De Vargas and Villar Luis; 2008)

These negative factors and issues may significantly influence the risk factors for nurses to develop negative behaviour towards patients with substance misuse and jeopardise the quality of care delivered to those patients. Nurses have to reconsider nursing practice to emphasise promotion of health and wellbeing within addiction services. According to Berg and Danielson (2007), in nursing, it means attending to the wholeness of patients and building a trustful relationship with them.

Later in this chapter it will be explained in detail the concept of countertransference, which suggests that negative attitudes and related factors of the nursing profession in addiction services, are risk factors to develop vicarious trauma.

### **2.6.2 Patients with Addictive Behaviour and Trauma**

Traumatic events and the development of an addictive behavior has been studied for many years, and the studies lead to similar conclusions.

Researches report that among patients with addictive behaviour, sixty percent to ninety percent have a history of sexual or physical abuse (Bride, 2007), and thirty percent to fifty percent meet the criteria for a diagnosis of post-traumatic stress disorder (PTSD) (Najavits, *et al.*, 1997; Bride, 2005). Ninety-seven percent of female drug users reported one, or more, violent traumas in the past (Fullilove *et al.*, 1993). Eighty percent of rape victims will develop a history of drug addiction in adulthood (Lisak, 1994). Seventy-six percent of people who experienced a trauma, will begin abusing psychoactive substances (National Child Traumatic Stress Network, 2008). Sixty-six percent of people specify that exposure

to trauma occurred as a result of drug and alcohol misuse (National Child Traumatic Stress Network, 2008).

Maté (2008) wrote how the majority of his patients with addiction problems suffered severe neglect and maltreatment early in life. He also pointed out that people who misuse drugs more heavily are also those who have lived in abusive homes, and the autobiographies of these people reported stories such as “rape, beatings, humiliation, rejection, abandonment and relentless character assassination” (p. 34). Maté believes that all addiction behaviors have a painful experience in common.

Given the high probability of patients with addictions of having suffered a trauma, there is a high likelihood that nurses working in this sector experience indirect trauma due to constant exposure and therefore, it seems imperative that nurses are adequately prepared.

### **2.6.3 Therapeutic Relationships between Nurses and Patients with Addiction Issues**

Nurses have a fundamental responsibility to provide compassionate care to patients, which exposes them to the daily experiences of pain, suffering, and trauma (Coetzee and Klopper, 2010). The therapeutic relationship between healthcare professionals and patients is widely recognised as vital for successful treatment (Urbanoski *et al.*, 2012). In this context, the terms transference and countertransference are traditionally employed to describe the reciprocal impact that patients and therapists have on each other during psychotherapy (Wilson & Lindy, 1994). While extensively examined in various healthcare professions, such as nursing (Kelly, 1998; Jones, 2005; Evans, 2007; Son, 2017), these terms hold significance for understanding the relationship dynamics in addiction care.

Trauma survivors encounter challenges in establishing therapeutic relationship with healthcare professionals due to the development of distorted self-perceptions and perceptions of the world (McCann and Perlman, 1990). These distortions, characterised by mistrust, hostility, vulnerability, and feelings of powerlessness, contribute to the difficulties professionals face in working with traumatised patients (Knight, 2013). Moreover, patients with addiction often employ higher psychological defence

mechanisms, including denial, projection, rationalisation, and repression, which can lead to manipulation and deception, further complicating the establishment of relationships with nurses in the addiction field (Hussein Rassool and Lind, 2000). Neumann and Gamble (1995) highlight that healthcare professionals may be perceived by patients as dangerously seductive, helpless, uncaring, paralysed, vulnerable, hurt, or abandoned. Trauma-specific transference (TST), as conceptualised by Wilson & Lindy (1994), refers to the unconscious reaction of patients where they relate to the nurse in ways that reflect unresolved, unassimilated, and ego-alien aspects of the traumatic event. These reactions encompass affective states, behavioural tendencies, and symbolic role relationships and focus on specific dynamics of the experienced trauma.

Relational issues in addiction care are not confined to the patients' side; as Tierney (2016) points out, there is a lack of adequate educational preparation in substance use disorders among nurses. This deficiency can lead to negative attitudes towards patients, complicating the therapeutic relationship and rendering nurses more vulnerable to indirect trauma. Patients perceive this lack of knowledge as a threat to their care and an opportunity for exploitation when the educational foundation for nurses in their interactions with individuals with substance use disorders is inadequate (Tierney, 2016). Reduced education may result in nurses perceiving patients as aggressive and reinforcing negative attitudes, ultimately leading to a poor therapeutic relationship. Culturally competent trauma therapy, as highlighted by Brown (2007), emphasises the importance of psychotherapists understanding how a trauma survivor's multiple identities and social contexts shape their trauma experiences and recovery process. Similarly, in nursing practice, recognising and understanding the client's experiences through education play a central role in ensuring a healthy therapeutic relationship. Nurses in addiction services may experience heightened stress, excessive involvement, or compromised therapeutic boundaries due to the perception of the patient or client group operating within an illegal underworld or subculture that poses potential dangers (Staff, 1996). The successful therapeutic relationship follows specific criteria and evolves through phases, typically beginning with an orientation phase and often culminating in frustration and withdrawal (Narise *et al.*, 2017). Professionals frequently exposed to patients' traumatic stories for extended periods, such as forty or more hours per week, may naturally develop distress

(Molnar *et al.*, 2017). Recent evidence suggests that professionals who adopt trauma-centred treatment or care approaches derive greater benefits compared to the standard of care (Sansbury *et al.*, 2014).

Despite these challenges, the phenomenon of vicarious trauma has not been specifically defined, explored, described, or explained within the context of addiction nursing practice, which hinders the identification of associated risks and protective practices. Further research is needed to enhance understanding in this area.

## **2.7 THEME TWO – Risk factors - Individual and organisational influences**

The existing body of literature indicates that the development of vicarious trauma is not universally experienced by all individuals who are vicariously exposed to traumatic events (Sinclair & Hamill, 2007). This finding underscores the presence of various variables that may heighten the probability of nurses experiencing vicarious trauma. In their seminal work, Pearlman & Saakvitne (1995) identify both individual risk factors, such as age, gender, trauma history, years of experience, duration of employment at the same organisation, level of empathy, and countertransference, as well as organisational contributing factors. These factors collectively contribute to the complex dynamics that influence the likelihood of nurses encountering vicarious trauma.

### **2.7.1 Individual Risk Factors**

Various factors that may influence the occurrence of vicarious trauma have been examined. Extensive literature confirms the existence of vicarious trauma within healthcare organisations, but also acknowledges that not all healthcare professionals who are vicariously exposed to traumatic events develop symptoms (Lerias & Byrne, 2003). According to the theory proposed by Pearlman & Saakvitne (1995), vicarious traumatisation arises from the interaction between the client's trauma experience and the personal characteristics of the professional (Peled-Avram, 2017). Thus, individual characteristics may play a role in the development of vicarious trauma. The literature suggests that certain individual factors are more likely to influence an individual's belief system following exposure to secondary trauma. These factors include empathy, personal

trauma history, gender and age, and experience working with traumatised patients and countertransference.

(a) Empathy - The literature reviewed indicates that a breakdown in healthcare professionals' empathy results in the loss of their effective therapeutic role (Wilson & Lindy, 1994). Dane (2002) explains empathy as an essential tool for supporting the recovery of trauma survivors. Some studies suggest that professionals who possess high levels of empathy are also the most vulnerable to experiencing vicarious trauma (Wilson & Lindy, 1994; MacRitchie and Leibowitz, 2010). As emphasised by Ludick and Figley (2017), humans are social beings who require empathy to coexist in society. However, this ability can become burdensome if not properly managed, as it can lead workers to assimilate excessive distressing information. Therefore, empathy has the potential to both protect and harm (Salston and Figley, 2003). In traditional Native American teachings, it is said that "each time you heal someone, you give away a piece of yourself until, at some point, you will require healing" (Stebnicki, 2007). Surprisingly, the results of Harrison and Westwood (2009) demonstrated that participants expressed how intimate empathic engagement with patients sustains them in their work and contributes to better relationships with patients.

The following Figure 2.2 presents a schema of responses resulting from empathic engagement with traumatised patients, taken directly from the work of Cohen and Collens (2013, p. 25) on vicarious trauma and vicarious traumatic growth.

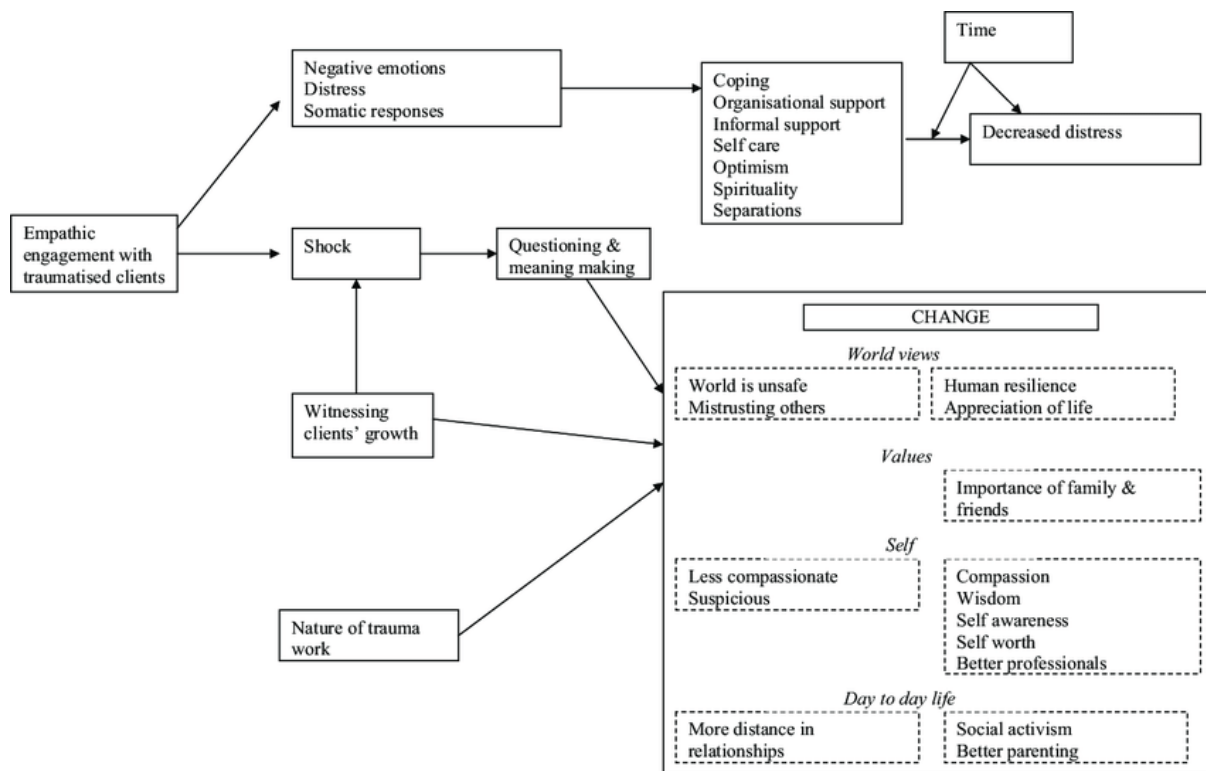


Figure 2.2 *Empathic Engagement with Traumatized Patients, Cohen and Collens (2013, p. 25)*

(b) Personal Trauma History- Numerous studies have highlighted that healthcare professionals who are themselves trauma survivors are at a greater risk of developing indirect trauma (Pearlman and Mac Ian, 1995; Nelson-Gardell and Harris, 2003; Newell and MacNeil, 2010; Knight, 2013). However, personal trauma history has also been found to have positive effects on professionals' well-being (Linley and Joseph, 2007). Personal trauma history has been identified as an important variable in predicting the development of indirect trauma or PTSD symptoms among trauma workers (Sabin-Farrella and Turpin, 2003). Pearlman and Mac Ian (1995) reported that sexual violence counsellors with a personal history of sexual abuse tended to exhibit the highest levels of trauma-related symptoms. Marion Conti-O'Hare (2002), with the "Nurse as Wounded Healer (N-WH) theory," posits that nurses are often drawn to this profession as a means of alleviating the suffering of patients after experiencing or witnessing traumatic events in their own lives. Despite this evidence, other authors, such as Benatar (2000), suggest that experienced therapists with personal childhood sexual abuse histories do not appear to be more vulnerable to vicarious trauma than colleagues without such experiences. Additionally,

the findings of Brockhouse *et al.* (2011) reported no differences in personal positive growth between professionals with and without a personal trauma history.

(c) Gender and Age- Numerous studies have explored the greater likelihood of female healthcare professionals developing indirect trauma (Brick, 2001; Woodard Meyers and Cornille, 2002; Knight, 2013; Sansbury, Graves, and Scott, 2014). However, other studies (Robinson *et al.*, 2003) have reported that males are more likely to have higher vicarious trauma scores. Hagney *et al.* (2014) found that younger nurses working full-time and without postgraduate qualifications are at a higher risk of experiencing anxiety. Some studies indicated that younger counsellors exhibit the highest levels of distress (Pearlman & Mac Ian, 1995; Bell et al., 2003). Interestingly, another study found an association between older age and lower levels of emotional exhaustion (Robinson *et al.*, 2003) and higher levels of general vicarious posttraumatic growth (Brockhouse *et al.*, 2011).

(d) Experience- Some research indicates that novice professionals are at an increased risk of developing vicarious trauma and secondary traumatic stress (Kadambi and Truscott, 2004). However, other research suggests that experienced workers may also struggle (Ben-Porat, 2015). Hernández *et al.* (2010) state that "vicarious trauma refers to the cumulative effect of working with traumatised patients" (p. 69). In other words, for some researchers, the duration of exposure (and thus, the length of experience working with trauma) to indirect trauma is a risk factor for developing vicarious trauma. Wee and Myers (2002) also indicated in their study that professionals with more months of service exhibited the most severe symptoms of indirect trauma. On the other hand, some authors explain that professionals working in high trauma-related situations with little clinical experience are particularly vulnerable to the effects of vicarious trauma (McCann & Pearlman, 1990). This implies that less working experience is a risk factor for developing vicarious trauma. The literature reviewed suggests that there is no consensus regarding experience as a risk factor for professionals working with traumatised patients. The conclusions are inconclusive, and further investigation is required.

(e) Countertransference - VT and countertransference are interconnected and reinforce each other (Peled-Avram, 2017). Countertransference typically refers to the personal

issues of the professional that may intrude in the patient relationship and disrupt it (Pearlman & Saakvitne, 1995; Knight, 2013). O'Kelly (1998) defines countertransference as a psychoanalytical concept that, when applied to nursing, refers to the unconscious response of the nurse to the patient. Freud's (1895) notion of countertransference implies that professionals' reactions are based on their own unresolved conflicts. The phenomenon of countertransference is often described as an explanation of how vicarious trauma may occur (Sabin-Farella & Turpin, 2003). Vicarious trauma increases healthcare professionals' vulnerability to countertransference responses, including anger and rage, grief reactions, detachment, and rescue fantasies (Pearlman & Saakvitne, 1995), while countertransference intensifies the risk of experiencing vicarious trauma. Unaddressed vicarious trauma can hinder the reflective processing of countertransference issues (Neuman & Gamble, 1995). Therefore, healthcare professionals working with traumatised patients need to consider the phenomenon of countertransference (Wilson & Lindy, 1994).

Some authors (Wilson & Lindy, 1994) specify that empathic strain in the therapeutic relationship can lead to negative countertransference reactions, while others, such as Figley (2002), suggest that countertransference has little to do with empathy for the patient's trauma, but rather involves the health professionals identifying themselves in the patient based on personal factors. Countertransference and vicarious trauma are closely related and often intertwined (Neumann & Gamble, 1995), although this phenomenon is not limited to trauma survivors and can occur with any type of client. The importance of recognising countertransference is universally acknowledged.

### **2.7.2 Organisational Risk Factors**

According to the body of research reviewed, the presence of organisational support has been consistently identified as a crucial factor in mitigating the impact of indirect trauma on healthcare professionals (Bride *et al.*, 2007; Brockhouse, 2010; McGibbon *et al.*, 2010; Knight, 2013; Sansbury, Graves, and Scott, 2014; Van der Merwe and Hunt, 2018). It has been firmly established that a proactive and swift organisational intervention following an indirect trauma exposure plays a vital role in supporting professionals and minimising the adverse effects of such experiences. Conversely, when healthcare workers are left

without adequate organisational attention, the risk not only of indirect trauma but also of developing burnout significantly increases (Newell and McNeil, 2010; Knight, 2013).

A supportive work environment has been consistently found to be of paramount importance in the effective management of indirect trauma (Knight, 2013). Such organisations place a strong emphasis on the early recognition of indirect trauma symptoms among their personnel and respond promptly with appropriate interventions. This proactive approach enables healthcare professionals to receive the necessary support and resources to cope with the psychological and emotional challenges they encounter in their work. The recognition and validation of the experiences of healthcare professionals who are exposed to trauma indirectly create an environment that fosters their well-being and resilience (Pearlman & Saakvitne, 1995; Sansbury *et al.*, 2014).

In contrast, organisations that neglect to provide adequate support and resources may inadvertently contribute to the development of vicarious trauma and burnout among their workforces. As previously mentioned, these adverse conditions can spread among individuals within the organisation, leading to a negative contagion effect (Robinson *et al.*, 2003; Knight, 2013). The concept of "organisational contagion" refers to the phenomenon where negative experiences and emotions, such as burnout and vicarious trauma, can propagate from one individual to another within a work setting, impacting the overall well-being and performance of the entire team (Moylan, 1994).

According to the literature, recognising the potential ramifications of insufficient organisational support, it becomes imperative for healthcare organisations to prioritise the provision of supportive measures. This includes ensuring suitable work hours and effective communication channels to prevent work exhaustion and foster a healthy work-life balance (Robinson *et al.*, 2003). Additionally, promoting peer support programs and creating opportunities for healthcare professionals to connect with and seek support from their colleagues has been shown to be beneficial in maintaining their psychological well-being (Knight, 2013).

## **2.8 THEME THREE - The Consequences of VT**

The development of vicarious trauma in professionals can manifest in a range of changes that affect various aspects of their well-being. These changes encompass physical, neurological, emotional, cognitive, sexual, and spiritual dimensions (Branson, 2018). Neglecting to address vicarious trauma can have pervasive consequences, as Neumann and Gamble (1995) highlight: "The results of VT can be pervasive, ranging from occasional nonempathic distancing from patients to victim blaming, to a progressive loss of energy and idealism on the part of the clinician, leading to depression" (p.344).

The symptoms experienced by professionals affected by vicarious trauma are often comparable to those seen in individuals who have directly experienced trauma. These symptoms include unwelcome thoughts of client-induced imagery, nightmares, increased absenteeism from work, social isolation, avoidance of client traumatic disclosures, resulting in below-average clinical services, negative coping skills both personally and professionally, hyperarousal concerning personal safety and the safety of loved ones, avoidance of physical intimacy, an increasingly pessimistic view of the world, loss of clinical motivation and work ethic, distancing from spiritual beliefs, reduction of longevity in the field, and stress-induced medical conditions (Branson, 2018).

The impact of vicarious trauma extends beyond the individual professional, affecting client care and the healthcare system as a whole. The quality and effectiveness of the care provided to patients can be compromised when professionals are grappling with the effects of vicarious trauma. It can lead to a decline in the standard of care, as professionals may struggle to maintain their usual level of engagement and empathetic connection with patients. Furthermore, the prevalence of vicarious trauma within the healthcare workforce can create systemic challenges, such as increased turnover rates, decreased job satisfaction, and decreased overall well-being among healthcare professionals (Branson, 2018).

Recognising the wide-ranging impact of vicarious trauma is crucial for healthcare organisations and policymakers. Efforts should be directed toward implementing support

systems, interventions, and preventive measures that address the well-being and resilience of healthcare professionals. By acknowledging and actively addressing vicarious trauma, healthcare systems can mitigate its negative effects on professionals, improve client care, and foster a healthier and more sustainable healthcare environment.

### **2.8.1 Consequences for Healthcare Professionals**

According to Fox (1998), vicarious trauma refers to the healthcare professional mirroring the behaviours and emotions of their patients. Indirect trauma, such as vicarious trauma, can cause healthcare practitioners working with trauma survivors to exhibit behaviours that closely resemble those of their patients (Knight, 2013). Research by Stamm (1999) indicates that indirect trauma leads to symptoms similar to post-traumatic stress disorder (PTSD), with the key difference being that professionals experience the trauma second-hand. As mentioned previously, vicarious trauma can have both cognitive and physical effects on healthcare professionals.

**Cognitive Changes-** One specific aspect of vicarious trauma, as previously mentioned, is the cognitive changes experienced by individuals. McCann and Pearlman (1990) were the first to discuss how a seemingly neutral object in a healthcare professional's environment, can trigger images or flashbacks related to their patients' traumatic experiences. When a patient discusses a traumatic event associated with a particular object, the therapist may subconsciously associate that object with the client's trauma in a different context. The object becomes linked to traumatic experiences within the therapist's memory system (Sabin-Farella & Turpin, 2003). As a result, the therapist may generate mental images based on another person's experiences, which can later be experienced as real memories or flashbacks (Sabin-Farella & Turpin, 2003). Neuman & Gamble (1995) extensively explain how vicarious trauma can impact the imagery system of a healthcare professional's memory. They state that trauma therapists may find themselves involuntarily recalling vivid images conveyed by their survivor patients outside of therapy sessions. These intrusive images can be distressing and provoke affective responses similar to those experienced during traumatic situations. As therapists continuously hear detailed accounts of exploitation, sadism, abandonment, and betrayal, their worldviews become repeatedly challenged. They begin to view the world through a trauma lens and feel an

intense sensitivity to human suffering, not just during work hours, but also in their personal lives. For example, the sound of a child crying in a grocery store may evoke images from a client's narrative of childhood abuse. The therapist experiences grief, anger, and a sense of helplessness (Neuman & Gamble, 1995, p. 344).

**Physical Changes-** The stress associated with trauma-related work can have significant effects on physical health. Healthcare professionals who experience vicarious trauma report a range of post-traumatic symptoms similar to those experienced by their traumatised patients (Neuman & Gamble, 1995). Neurological reactions to vicarious trauma can follow a similar pathway through the limbic system as direct exposure to trauma (Tyler, 2012). Neuman and Gamble (1995) noted that healthcare professionals working with trauma survivors commonly experience physical symptoms such as headaches, nausea, sleeplessness, intrusive imagery, increased feelings of personal vulnerability, difficulty trusting others, emotional numbing and flooding, and sexual difficulties.

### **2.8.2 Consequences on the Patient**

Vicarious trauma not only affects healthcare professionals but also has wide-ranging consequences for patients (Robinson *et al.*, 2003; Sommer, 2008).

One significant consequence of vicarious trauma on patients is its potential to influence the ethical practice of healthcare professionals. The exposure to traumatic stories and experiences through their work, as mentioned above, can lead to cognitive, emotional and physical changes in practitioners. This, in turn, can result in poor decision-making and apathy towards clinical work. Healthcare professionals may find themselves becoming indifferent or detached, leading to suboptimal care for their patients. Moreover, the continuous exposure to trauma can foster feelings of anger and cynicism towards traumatised patients, which can further impact the quality of care provided (Branson, 2018).

The effects of vicarious trauma on healthcare professionals can manifest in various ways, such as the development of an inflated sense of self-importance in specific cases. This may

lead to biased judgment and a distorted perception of patients' needs. Additionally, maintaining professional and personal boundaries can become challenging, as the emotional toll of vicarious trauma can blur the line between professional obligations and personal well-being.

In his book "In the Realm of Hungry Ghosts," Mate' (2018) provides a first-hand account of the negative reactions that can arise from work-related stress and continuous exposure to patients with addiction. Healthcare professionals working in such demanding environments may experience frustration, irritability, or other negative emotional responses, which can inadvertently affect their interactions with patients. However, patients are often perceptive and attuned to the challenges faced by healthcare professionals. They can recognise signs of stress and emotional strain, and they may even empathise with the healthcare provider's difficult position (Mate', 2018).

Patients, despite dealing with their own troubles, are not oblivious to the impact of work-related stress and its potential effects on the behaviour of healthcare professionals. They can sense when a healthcare provider is struggling and may observe changes in demeanour, communication, or even the overall quality of care they receive. This awareness highlights the interconnectedness between the well-being of healthcare professionals and the experiences of their patients.

In conclusion, the consequences of vicarious trauma on patients are multifaceted. The ethical practice of healthcare professionals may be compromised, leading to suboptimal care, cynicism, and difficulties in maintaining professional boundaries. Patients can perceive the effects of work-related stress on healthcare professionals and may respond with understanding or even concern. It is crucial for healthcare organisations to actively address and mitigate the impact of vicarious trauma to ensure the well-being of both professionals and patients within the healthcare system.

### **2.8.3 Consequences on the Healthcare System**

The consequences of vicarious trauma extend beyond the individual healthcare professional and can significantly impact the healthcare system as a whole. As already

mentioned, Hallinan (2019), in a revision of Perez's (2010) study, emphasises that individuals experiencing high levels of secondary traumatic stress, which is a potential outcome of vicarious trauma with symptoms similar to post-traumatic stress disorder, may exhibit decreased ability to work independently and a general distrust of co-workers. Furthermore, they are more likely to actively seek employment elsewhere (p. 482). This highlights how vicarious trauma can impair the functioning of healthcare professionals within the system.

VT can also have detrimental effects on teamwork and communication among healthcare professionals (Knight, 2013). The emotional toll and decreased well-being experienced by professionals affected by vicarious trauma can hinder effective collaboration and compromise the overall quality of care provided. When healthcare professionals experiencing vicarious trauma do not receive adequate support and assistance from management or supervisors, they may opt to leave their positions, leading to instability within the healthcare organisation. This can result in a reduced number of skilled professionals remaining and create a need for the recruitment and training of new employees (Sommer, 2008). Robinson *et al.*, (2003) further suggest that the development of vicarious trauma can lead to increased costs for the healthcare system and a subsequent decrease in staff effectiveness. Consequently, organisations must strive to adopt a "vicarious trauma-informed" approach, as highlighted by Hallinan (2019), in order to mitigate these consequences and ensure the overall well-being of their workforce and the effectiveness of the healthcare system.

In conclusion, the literature suggested that the consequences of vicarious trauma on the healthcare system are far-reaching. They encompass decreased ability to work independently, reduced trust among colleagues, impaired teamwork and communication, potential staff turnover, increased costs, and diminished effectiveness. Therefore, it is crucial for healthcare organisations to recognise and address the impact of vicarious trauma by implementing supportive measures and creating a vicarious trauma-informed environment. By doing so, they can safeguard the well-being of their professionals and optimise the delivery of care within the healthcare system.

### 2.8.4 Positive Impact of Working with Trauma.

The examination of the salutogenic aspects of human experience in relation to trauma has gained increasing attention in the past decade (Zerach & Shalev, 2015). While numerous studies have highlighted the negative consequences of exposure to indirect trauma, as discussed in previous paragraphs, it is worth noting that trauma can paradoxically have positive effects on patients (Hernández *et al.*, 2010). Professionals who work with trauma survivors can also experience personal growth and thrive through their experiences (Cohen & Collens, 2013). This phenomenon of growth can manifest in various ways, such as vicarious post-traumatic growth (Tedeschi & Calhoun, 2004), vicarious resilience (Hernández *et al.*, 2010), compassion satisfaction (Sacco *et al.*, 2015), and compassion contentment (Todaro-Franceschi, 2019). Studies have reported that resilience and personal growth resulting from working with trauma are key factors for effective clinicians who remain dedicated to the field (Santsbury *et al.*, 2015; Branson, 2018).

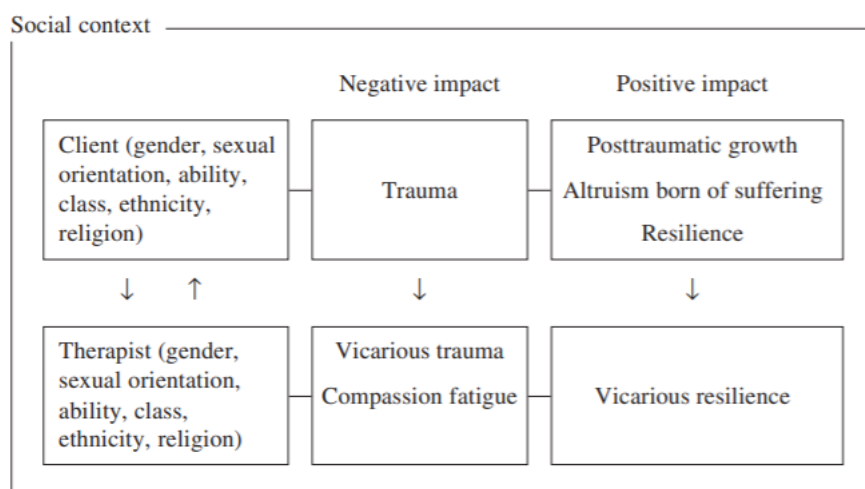


Figure 2.3 Relationship between vicarious trauma and vicarious resilience. (Hernández *et al.*, 2010; p.75)

Figure 2.3, extracted from Hernández *et al.*' study on "Exploring the impact of trauma on therapists: vicarious resilience and related concepts in training" (2010, p. 75), provides a visual representation of the relationship between trauma and growth. It illustrates how patients' traumatic experiences can lead therapists (healthcare professionals) to

experience vicarious trauma, or compassion fatigue. However, the table also showcases the positive impacts of trauma and indirect trauma. Patients can undergo personal growth and experience posttraumatic growth (or resilience born from suffering or altruism), while healthcare professionals can undergo growth through vicarious trauma and experience vicarious resilience (Hernández *et al.*, 2010), as defined by other authors (Tedeschi & Calhoun, 1996; Linley & Joseph, 2007; Brockhouse *et al.*, 2011; Silverstein *et al.*, 2018), known as vicarious post-traumatic growth.

Vicarious Post-Traumatic Growth- Brockhouse *et al.* (2011) noted that research on vicarious post-traumatic growth is still relatively recent, resulting in some inconsistencies in the findings. Studies have indicated that the sense of coherence (viewing the world as comprehensible, manageable, and meaningful) and organisational support are potential moderators of vicarious post-traumatic growth (Linley & Joseph, 2007; Brockhouse *et al.*, 2011). Vicarious post-traumatic growth emerges as a positive outcome following secondary trauma, characterised by a perception of new possibilities, enhanced personal strength, spiritual changes, and a heightened appreciation for life (Zerach & Shalev, 2015). Tedeschi and Calhoun (1996) have identified three broad categories of positive change associated with growth: changes in self-perception, changes in interpersonal relationships, and changes in life philosophy. Moreover, exposure to traumatic material has been found to enhance self-understanding and the ability to understand others, according to Herman (1995). Measurement of vicarious post-traumatic growth is commonly done using the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), consisting of 21 items grouped into five distinct domains: Changes in Relationships, Life Possibilities, Personal Strength, Spirituality, and Appreciation of Life (Silverstein *et al.*, 2018). Branson (2018) emphasises that vicarious post-traumatic growth is not a random occurrence, and it is the responsibility of professionals individually, agencies organisationally, and academia educationally to consistently support the prevention of vicarious trauma.

Vicarious Resilience- Vicarious resilience refers to a process characterised by the positive transformation of therapists in response to the resiliency of trauma survivors (Hernández, Gangsei, & Engstrom, 2007, p. 237). Through three qualitative studies, Hernández *et al.*

(2007, 2008, and 2010) conducted interviews with therapists who worked with trauma survivors and found that these therapists were able to recognise positive effects within themselves resulting from interactions with patients who had overcome adversity in their own lives (Hernández *et al.*, 2010, p. 72). Hernández *et al.* (2010) identified seven aspects that therapists addressed when overcoming the challenges of working with trauma, including reflecting on the capacity of human beings to heal, reaffirming the value of therapy, regaining hope, reassessing one's own problems, understanding and valuing the spiritual dimensions of healing, discovering the power of community healing, and raising awareness about the impact and multiple dimensions of trauma through writing and participating in public speaking forums (p. 72). As suggested by Branson (2018), clinicians do not develop vicarious posttraumatic growth by coincidence and therefore, "it is the responsibility of the professional individually, of the agencies organisationally, and academia educationally" (Branson, 2018), to persistently provide support for vicarious trauma prevention.

Various terms have been introduced in the literature review to describe the positive growth experienced by professionals after working with traumatised patients and being exposed to indirect trauma. Among these terms are Compassion Satisfaction and Compassion Contentment. Regardless of the specific definition employed, it is worth noting that clinicians who work with traumatised individuals acknowledge that positive growth does not diminish or erase the anguish and suffering; instead, both pain and positive transformation coexist, as highlighted by the research findings of Harrison and Westwood's research (2009).

## **2.9 THEME FOUR - Coping Mechanisms among Nurses**

Protective factors against vicarious trauma are crucial in safeguarding healthcare professionals from the emotional toll of their work. While individual coping mechanisms play a significant role, organisational leadership also emerges as a critical factor in VT prevention.

### **2.9.1 Personal Coping Mechanisms**

Some major personal coping mechanisms have been reported to be particularly significant in mitigating the effects of vicarious trauma.

Self-care (Salston & Figley, 2003; Sommer, 2008; Ludick & Figley, 2017; Garner, 2017; Manning-Jones *et al.*, 2017) involves activities such as taking breaks, pursuing hobbies, and practising relaxation techniques. These actions enable healthcare professionals to recharge and replenish their emotional resources, enhancing their resilience in the face of VT.

Mindfulness practices (Harrison & Westwood, 2009; Magtibay *et al.*, 2017) also prove effective in preventing VT. By cultivating self-awareness and being fully present in the moment, healthcare professionals can develop greater resilience and reduce the impact of secondary trauma.

Maintaining a healthy lifestyle (Pearlman, 1999; Newell & MacNeil, 2010; Molnar *et al.*, 2017) is another protective factor against VT. Engaging in activities such as regular exercise, yoga, meditation, adopting a balanced diet, and prioritising restful sleep contributes to overall well-being, helping professionals cope with the challenges of their work.

Detachment is the ability to separate oneself emotionally from patients' suffering, and according to many authors, it is crucial in preventing VT (Figley, 2002; Sonnentag & Bayer, 2005). Establishing healthy boundaries and practising self-care techniques allow professionals to process their emotions without becoming overwhelmed.

Continuous education (Pearlman, 1999; Robinson *et al.*, 2003; Knight, 2013; Tierney, 2016; Ludick & Figley, 2017) is an essential protective factor against VT. By staying informed about the latest research, best practices, and self-care strategies, professionals can enhance their knowledge and skills, better preparing themselves for the challenges of their work.

Social support, both from colleagues and personal relationships, has been shown to play a significant role in protecting against VT (Boscarino *et al.*, 2004; Ludick & Figley, 2017; Manning-Jones *et al.*, 2017). Having a support system that understands the unique challenges of the healthcare profession provides comfort, validation, and encouragement. Peer support programs (Maier, 2011) have also proven beneficial in preventing VT, facilitating sharing experiences, emotional support, and practical advice among peers with similar professional roles and responsibilities.

Establishing and maintaining clear boundaries (Maier, 2011; Rice & Warland, 2013) is essential in preventing VT. Healthcare professionals should be aware of their limitations, both in terms of workload and emotional capacity, and communicate their boundaries effectively to ensure a healthy balance between work and personal life.

Supervision, including clinical supervision and debriefing sessions (Sinclair & Hamill, 2007), is identified as a protective factor against VT. These sessions provide opportunities for professionals to reflect on their experiences, process their emotions, and receive guidance and support from experienced supervisors or mentors.

Additionally, Hartley (2018) suggests that advanced practice nurses could make a significant impact by training clinicians to develop a second traumatisation program, encompassing VT detection, prevention, and support. This approach equips healthcare professionals with skills and strategies to mitigate the risk of VT and enhance their resilience in the face of challenging situations.

In conjunction with these personal coping mechanisms, it is crucial to recognise the pivotal role of organisational leadership in VT prevention.

### **2.9.2 Role of Organisational Leadership in Prevention of VT**

In addition to individual strategies for coping, the role of organisational leadership and support has been identified as a critical factor in the prevention of vicarious trauma. Extensive review of the literature has underscored the importance of strong leadership in establishing a work environment that fosters support and prioritises the well-being of

healthcare professionals. The connection between vicarious trauma and leadership is particularly vital for the well-being of nurses, prompting a comprehensive examination of this relationship in the literature. Consequently, the following paragraph provides a more detailed explanation of the impact of leadership on nurses' well-being in the context of vicarious trauma.

## **2.10 THEME FIVE – Leadership and VT**

Although the concept of vicarious trauma has been in existence for over three decades, the literature reviewed lacks studies specifically examining its occurrence in the nursing field and its connection with leadership practices.

Vicarious trauma prevention has gained momentum within healthcare organisations. According to the reviewed literature, while indirect exposure to trauma may be an inevitable occupational challenge, it does not always lead to negative consequences or vicarious trauma (Hallinan *et al.*, 2019). Therefore, it is crucial to guide nurses in effectively coping with negative experiences and fostering personal leadership for a healthy workplace. Extensive research has been conducted on vicarious trauma prevention, and the majority of authors agree on several personal coping mechanisms employed by healthcare professionals to avoid negative experiences at work. These mechanisms were indicated in the previous paragraphs. The literature also stresses that individual self-care outside of work is not sufficient, as organisational leadership plays a crucial role in creating a healthy work environment. Proactive, supportive, and well-organised approaches to addressing vicarious trauma within organisations can mitigate the potential for negative consequences (Pearlman, 1999; Cummings, 2004; Sommer, 2008). Failure to implement these mitigations can lead to destructive consequences not only for healthcare professionals but also for patients (Sommer, 2008). The studies suggest that managers, directors, and supervisors hold key leadership roles in this regard. However, this research study aimed to move beyond the traditional transactional leadership approach and promote a more distributed leadership awareness.

However, the existing literature predominantly revolves around hierarchical models of organisational leadership, focusing on the role of managers and individuals with official status (McCann & Pearlman, 1990; McGibbon *et al.*, 2010; Rice & Warland, 2013). This limited perspective fails to address the need for a more inclusive and distributed definition of leadership that considers diverse leadership characteristics and strategies. Recent research suggests that a more collective vision and goal-oriented approach, in line with distributed leadership approach, may be more effective in the modern healthcare system (Northouse, 2017; Curtis *et al.*, 2021).

Therefore, this thesis seeks to address this gap by examining the association between leadership and VT, shedding light on the importance of expanding the scope of organisational leadership beyond traditional hierarchical structures.

### **2.10.1 Nursing leadership, Coping Mechanisms, and VT Prevention for a Healthy Work Environment.**

According to the literature review, indirect trauma exposure is an unavoidable occupational challenge. However, it has been found that this exposure does not always result in negative consequences or vicarious trauma (Hallinan *et al.*, 2019). Instead, as mentioned in the previous paragraphs, it can potentially contribute to personal and professional growth. Therefore, it is imperative to guide nurses in effectively coping with negative experiences and to establish strong leadership practices that promote a healthy workplace. Research has also highlighted the significance of organisational support in addition to individual self-care and leadership knowledge. Supervisors, managers, and organisations play a fundamental role in creating a healthy work environment and mitigating the potential for negative consequences associated with vicarious trauma. Proactive, supportive, and well-organised approaches to addressing vicarious trauma are essential (Pearlman, 1999; Cummings, 2004; Sommer, 2008). Failure to implement these measures can have detrimental effects not only on the well-being of healthcare professionals but also on patient care (Sommer, 2008). Various leadership approaches have been proposed to mitigate vicarious trauma, including emotionally intelligent

leadership (Cummins, 2004), relational-oriented supervision (Peled-Avram, 2017), and trauma-specific supervision.

### **2.10.2 Contemporary Literature on Leadership in Healthcare Setting**

Leadership can be described as a process in which an individual influences other to achieve goals that reflect a collective vision (Northouse, 2017). Extensive literature has emphasised the significance of leadership in overcoming challenges for both organisations and individuals (Pearlman, 1999; Cummings, 2004; Sommer, 2008; Curtis & Cullen, 2017; McKenna & Jeske, 2020). However, the literature also reveals an ambiguity surrounding the term "leadership," with many studies referring to it as a static objective reality within a hierarchical framework. This research argues for a more inclusive form of leadership, aiming to move away from the traditional "heroic" approach and understanding of leadership in healthcare professionals, toward a less selective interpretation.

Nurses, in particular, require strong leadership skills, encompassing initiative, motivation, resourcefulness, active awareness, problem-solving abilities, persistence, and effective communication with others (de Vries & Curtis, 2019). The reviewed literature highlights the central role of active leadership in creating a supportive and well-organised work environment that mitigates the potential development of vicarious trauma (Pearlman, 1999; Cummings, 2004; Sommer, 2008; McKenna & Jeske, 2020), improves patient satisfaction and healthcare outcomes (Shirey, 2009; Sfantou *et al.*, 2017; de Vries & Curtis, 2019), and reduces adverse events such as medication errors (Wong *et al.*, 2013).

In essence, there is a fundamental belief that leadership is crucial for organisations and individuals to overcome challenges (Curtis & Cullen, 2017). Nevertheless, even today, the term "leadership" remains ambiguous. The literature often portrays leadership as a static objective reality, divided into two contrasting approaches. These approaches are transactional (task-focused) and transformational (relationship-focused) leadership (de Vries & Curtis, 2019; Sammut & Scicluna, 2020; Wu *et al.*, 2020). The former emphasises task performance over relationships and highlights hierarchical management leadership (Sammut & Scicluna, 2020), primarily motivated by rewards and punishment. On the other hand, the latter, transformational leadership, is considered an effective way to support

nurses by engaging them emotionally and intellectually (Wu *et al.*, 2020). Relationship-focused leadership has been shown to enhance productivity and team effectiveness more than task-focused leadership (Cummings *et al.*, 2010). This approach sets goals and incentivises nurses to achieve higher performance levels while providing opportunities for personal and professional growth for each employee (Sammut & Scicluna, 2020). As previously explored, the literature review suggests that paradoxically, patients' trauma may have positive effects on nurses, empowering them and facilitating personal growth (Tedeschi & Calhoun, 2004; Cohen & Collens, 2013), thus reducing the likelihood of experiencing vicarious trauma.

Contemporary literature demonstrates a more integrated approach to leadership, as noted by de Vries & Curtis (2019), where leadership approaches are viewed along a continuum rather than as distinct dimensions. This research seeks to move away from this dichotomy by adopting a more fluid and participatory approach, such as distributed leadership, which was not identified in the literature reviewed in relation to vicarious trauma in nursing practice. Additionally, some studies suggest that distributed leadership has a significant impact on job stress (Rabindarang *et al.*, 2014), which has been identified as a common risk factor for vicarious trauma (Boscarino *et al.*, 2010). Moreover, distributed leadership encourages nurses to utilise their subjective perspective of complex situations to recognise and nurture their own strengths, responsibilities, and leadership potential, as well as that of their colleagues (Cleary *et al.*, 2017). These skills align with the common strategies for preventing vicarious trauma identified in the literature (Rees *et al.*, 2015; Slatyer *et al.*, 2018; Ulrich *et al.*, 2019).

### **2.10.3 Clinical Supervision in the Mitigation of Vicarious Trauma**

Although the transformational leadership model has been recognised for its positive effects on organisational well-being and employee satisfaction (de Vries & Curtis, 2019), there is a notable absence of studies investigating the impact of this leadership model on vicarious trauma. Most of the reviewed studies, however, suggest that the role of managers, representing the hierarchical model, is crucial in mitigating indirect trauma. These studies highlight the importance of implementing mechanisms such as debriefing with managers to prevent indirect trauma and reduce stress (Sansbury *et al.*, 2014).

Notably, clinical supervision, involving managers or those in charge, has received significant attention in nursing and has been recognised as a valuable contribution to reducing work-related stress and preventing its escalation (Hussein Rassool & Lind, 2000; Hesse, 2002; Trippany *et al.*, 2004; Canfield, 2005; Ericson-Lidman & Strandberg, 2009; Harrison & Westwood, 2009; Knight, 2013; Ludick & Figley, 2017; Branson, 2018). Hussein Rassool & Lind (2000) acknowledge that satisfactory supervision enables nurses working in addiction services to develop healthier professional competencies and alleviate stress and burnout.

The notion of clinical supervision within the nursing profession has garnered significant attention and has frequently been cited by researchers as an indispensable contribution in preventing the development or escalation of excessive work-related stress (Hussein Rassool & Lind, 2000; Canfield, 2005; Hesse, 2002; Trippany *et al.*, 2004; Ericson-Lidman & Strandberg, 2009; Harrison & Westwood, 2009; Knight, 2013; Ludick & Figley, 2017; Branson, 2018). Hussein Rassool and Lind (2000) acknowledged that adequate supervision facilitates the professional growth and development of nurses working in addiction services, thereby reducing stress and burnout. Notably, Pearlman & Saakvitne (1995) and Etherington (2000) have offered comprehensive guidelines for trauma-related supervision.

Supervisors who foster disharmony in the workplace exert a negative impact on nurses' well-being, consequently compromising the quality of care delivered to patients (Cummings, 2004). Literature concerning clinical supervision for professionals involved in traumatised client care underscores the significance of supervisors in recognising healthcare professionals' distress, normalising their reactions, and facilitating exploration of these reactions within a secure and supportive supervisory relationship (Peled-Avram, 2017).

Given the multifaceted responsibilities undertaken by nurses in the addiction field within a multidisciplinary framework, there exists a compelling need for clinical supervision (Hussein Rassool & Lind, 2000). In an exploratory study conducted by Hussein Rassool and Lind (2000), the Clinical Supervision Perception Questionnaire (CSPQ) was administered

to 40 addiction nurses to ascertain their perceptions of supervision practices. A significant 77% of the sample believed that supervision should be mandatory. Furthermore, over 85% of the participants recognised the essentiality of supervision in individual professional practice, enhancing self-awareness of strengths and weaknesses, boosting confidence, and resolving patient care-related issues.

### **2.11 THEME SIX- Lack of measurement tools for VT among nurses who work in addiction services.**

The lack of valid tools to measure vicarious trauma among nurses who work in addiction services poses a significant challenge for both researchers and healthcare organisations (Bride *et al.*, 2007). The existing measurement scales, although valuable in their own right, fail to capture the nuanced experiences and specific challenges faced by nurses in addiction services (Maslach & Jackson, 1986; Elliott & Briere, 1992).

The Maslach Burnout Inventory, for example, primarily focuses on burnout rather than explicitly assessing the impact of vicarious trauma. Similarly, the Impact of Event Scale and Trauma Symptom Checklist-40 primarily aims to identify post-traumatic stress disorder symptoms, which may not fully capture the unique psychological and emotional toll of vicarious trauma (Derogatis, 1983; Elliott & Briere, 1992).

The Traumatic Stress Institute Belief Scale (TSI) and the Trauma and Attachment Belief Scale (TABS) provide some insights into the cognitive disruptions and long-term impact of trauma on beliefs, but their length and specialised requirements limit their applicability in broader research and clinical settings (Pearlman *et al.*, 1992; Pearlman, 2003). Furthermore, many of these scales were developed for mental health professionals rather than specifically targeting nurses working in addiction services.

The Professional Quality of Life (ProQOL) scale is one of the most commonly used tools to assess the impact of trauma on healthcare professionals (Perkins & Sprang, 2013). However, its focus on the overall quality of life may not sufficiently capture the unique challenges and consequences faced by nurses in addiction services. The scale's emphasis

on positive and negative aspects of helping those who experience trauma is valuable but lacks specificity to the context of addiction services.

The Vicarious Trauma Scale (VTS) offers a more focused approach by assessing subjective distress levels associated with working with traumatised patients (Vrklevski & Franklin, 2008). While its brevity and simplicity make it a more practical choice, its limited number of items may not fully capture the multifaceted nature of vicarious trauma among nurses in addiction services.

The Vicarious Trauma—Organisational Readiness Guide (VT–ORG) is an important tool for assessing an organisation's preparedness and response to vicarious trauma (Hallinan *et al.*, 2019). However, it primarily focuses on organisational factors rather than individual experiences, making it less suitable for capturing the personal experiences and challenges working in addiction services.

In conclusion, the lack of valid tools specifically designed to measure vicarious trauma among nurses in addiction services is a significant gap in the field. The existing scales provide some insights into related constructs but fail to fully capture the complex experiences of nurses exposed to the trauma of their patients. Researchers and healthcare organisations must work together to develop and validate measurement tools that are sensitive to the unique needs and challenges faced by these nurses. By doing so, we can better understand the impact of vicarious trauma, develop effective interventions, and support systems, and ultimately improve the well-being and quality of care provided by nurses in addiction services.

## **2.12 Conclusions and Summary**

The objective of this chapter was to share the outcomes of a systematic literature search, employing a rigorous approach, to investigate the phenomenon of vicarious trauma among nurses working in addiction services. A total of 33 full-text articles were retrieved through database searching, and following the application of the PRISMA flow chart, 13 articles were deemed suitable for inclusion in this review. The analysis of the literature

revealed several key themes, including the identification of both risk and protective factors associated with vicarious trauma. The main findings underscore the heightened vulnerability of these professionals to vicarious trauma due to their exposure to patient suffering. Despite a dearth of research specifically focusing on this specific group, the existing evidence is unequivocal.

It is important to note that addiction patients often harbour traumatic experiences, thereby exacerbating the risk factors for nurses. Furthermore, the literature review conducted also shed light on common coping mechanisms employed by healthcare professionals to address such trauma. Both negative and positive effects of vicarious trauma were explored, encompassing the phenomenon of vicarious post-traumatic growth, which has been reported by several studies.

Lastly, the reviewed literature highlighted the prominence of organisational leadership as a pivotal factor in this domain. Not only was it identified as a potential risk factor, but it also emerged as an effective coping mechanism. This underscores the influential role of leadership in minimising the impact of vicarious trauma. Specifically, inadequate leadership was found to pose a risk, while appropriate leadership, such as the concept of distributed leadership, was found to potentially mitigate the development of vicarious trauma.

In conclusion, this comprehensive literature review underscores the critical importance of conducting this research on the phenomenon of vicarious trauma among nurses in addiction services, given their heightened vulnerability and the undeniable evidence of its impact. The identified risk and protective factors, coupled with the exploration of coping mechanisms and the pivotal role of organisational leadership, emphasise the importance of addressing this issue to safeguard the well-being of healthcare professionals and enhance patient care. This review will be used to inform the methodology and data collection processes presented in detail in chapter 3.

# Chapter Three

## Methodology and Research Methods

### 3.1 Introduction

Building upon the introduction (Chapter 1) and the literature review (Chapter 2), this chapter examines the philosophical underpinnings of the study and provides an overview of the research design and methods employed to achieve the study's aim and objectives. Nursing research plays a pivotal role in tackling a wide array of problem-solving scenarios. As emphasised by Polit and Beck (2006, p.5), research empowers nurses to comprehend poorly understood nursing situations, assess the need for interventions, identify essential factors for planning nursing care, predict potential outcomes of nursing decisions, prevent unfavourable outcomes, offer guidance to enhance client health, and initiate activities to promote appropriate client behaviours.

However, defining research within the nursing field is challenging due to the constantly evolving and expanding roles of nurses (Parahoo, 2006, p. 9). Nevertheless, research is steadily gaining traction within nursing practice. Nurses, driven by their unique positions in clinical settings, are increasingly motivated to identify and address clinical problems that require innovative solutions (Polit & Beck, 2006; Siedlecki & Albert, 2017).

This chapter establishes the foundation for an exploration of key elements that have influenced this study. It serves as a roadmap for understanding the philosophical underpinnings, followed by an examination of the study's purpose and objectives. The chapter then examines the research design, the implementation phase, data analysis, and the integration of methods. Throughout this journey, the limitations and challenges of the research are acknowledged.

### 3.2 Philosophical Issues

In the realm of research, the exploration of worldviews and paradigms serves as a crucial foundation for understanding how we perceive and engage with the complexities of

reality (Polit & Beck, 2006; Kivunja & Kuyini, 2017). These following paragraphs delve into the philosophical underpinnings that guide research practices, particularly within the contentious field of mixed methods research. The term "paradigm" has long been a focal point of debate, with scholars engaging in a discourse that has pitted quantitative against qualitative, positivism against interpretivism, and sought to delineate the boundaries of these distinct research paradigms (Tashakkori & Teddlie, 1998). The dichotomy between objectivity and subjectivity has been a recurrent theme (Levitt *et al.*, 2022), and it is within this intellectual battleground that this study takes root. In this exploration, those paragraphs traverse the landscape of paradigms, worldviews, and philosophical stances, aiming to shed light on the pragmatic paradigm adapted for this research. These following paragraphs also uncover the intricate web of beliefs that underpin the methodology, ontology, epistemology, and axiology of this research.

### **3.2.1 Worldviews and paradigm explored.**

The field of research has been a subject of extensive debate, and in the 1990s, a notable "paradigm war" emerged, highlighting the distinctions between qualitative, quantitative, and mixed design paradigms, and the ongoing dichotomy between positivists and interpretivists (Tashakkori & Teddlie, 1998; Shannon-Baker, 2016). Positivist researchers rely on scientific evidence as the foundation of their work, while interpretivists argue that research is inherently influenced by the researcher's subjective perspective (Onwuegbuzie & Leech, 2005). This debate often revolves around the assumption that positivism is objective, whereas interpretivism is subjective (Brennan, 2012).

Acknowledging the impact of the "paradigm war," Tashakkori and Teddlie (2009) recognised that it paved the way for the emergence of the mixed methods approach to research and a new worldview. Consequently, three methodological paradigms have been identified: quantitative (QUAN), qualitative (QUAL), and mixed methods (MM) research (Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2009; Han, 2018).

Within these three overarching groups, four distinct main paradigms have been identified: post-positivism/positivism, constructivism/interpretivism, transformative perspective,

and pragmatism (Tashakkori and Teddlie, 2009, p. 84; Kivunja & Kuyini, 2017). In this research, the pragmatism worldview is adopted, and a comprehensive explanation of this choice will be provided in the subsequent paragraphs.

### **3.2.2 Mixed Methods worldviews**

In the context of mixed methods research, it is crucial for researchers to consider the philosophical assumptions that underpin their work, as these assumptions provide a foundation for the utilisation of mixed methods (Creswell & Clark, 2018). These assumptions represent a set of fundamental beliefs that guide the research process. The terms "worldviews" and "paradigms" are often used interchangeably by authors to describe these assumptions (Hassmén *et al.*, 2016; Creswell & Clark, 2018).

The paradigms associated with mixed methods research have been the subject of extensive debate, and some authors argue that paradigmatic issues within mixed methods research are still unresolved (Bazeley, 2004). The term "paradigm" was originally introduced by Kuhn (1970) to refer to a set of generalised beliefs and values shared by a specific scientific community. Experts emphasise the importance of researchers having a comprehensive understanding of different worldviews or paradigms before embarking on a research study (Creswell *et al.*, 2003). Therefore, this paragraph aims to explore the various philosophical assumptions within the contentious field of mixed methods research and shed light on the paradigmatic orientation of this research.

Johnson (2008) proposed that a paradigm for mixed methods research should be comprehensive and flexible, allowing researchers to adapt to the specific needs of their study. He argued that researchers should adopt a balanced position and be willing to embrace the existing tensions within the field (Molina-Azorin & Fetters, 2020).

Worldviews in mixed methods research can be categorised in different ways, including the adoption of a single paradigm such as pragmatism, transformative paradigm, or critical realism, the incorporation of multiple worldviews such as dialectical pluralism, the selection of a worldview based on the study context and type, and the consideration of

worldviews within a specific "community of scholars" as proposed by Kuhn in 1970 (Creswell and Clark, 2018).

### **3.2.3 Philosophical stance - Pragmatism**

This study adopts pragmatism as its research assumption, as it is the paradigm most commonly associated with mixed methods research (Creswell, 2014). Pragmatism can be defined as the practical and adaptable resolution of problems that suits existing conditions, rather than rigidly adhering to fixed theories, ideas, or rules (Oxford Online Dictionary, 2020). In this context, the literature review reveals that the conditions for considering vicarious trauma already exist. What is lacking is the connection between this phenomenon and its implications for nursing practice in the addiction field, as well as the role of leadership.

A pragmatist worldview does not perceive the world as a unified entity, and it allows researchers to incorporate both qualitative and quantitative data to gain a comprehensive understanding of a research problem (Creswell, 2014). This philosophy emphasises action, situations, and consequences over pre-established conditions, as seen in the postpositivist worldview (Kaushik & Walsh, 2019). Pragmatism focuses on problem-solving rather than specific methods, encouraging researchers to utilise all available approaches to address the problem at hand (Creswell, 2014). Harper (2019) argues that examining a problem from a singular perspective limits the understanding and can lead to misconceptions. In contrast, mixed methods research enables the exploration of multiple perspectives, resulting in a clearer representation of the phenomenon (Dawadi & Shrestha, 2021).

Vicarious trauma is an acknowledged phenomenon, and the previous chapters of the literature review have provided a comprehensive understanding of its complexities. It has been repeatedly emphasised that this phenomenon is dynamic and ever-present in contexts where trauma occurs. Given the aim of collecting detailed data on specific aspects of vicarious trauma and nurses working in the addiction field, the pragmatist paradigm is deemed suitable for this research. By combining qualitative and quantitative realities, this approach offers a comprehensive overview of the problem within the nurses'

daily experiences and facilitates a focus on problem-solving and finding practical solutions.

### **3.2.4 Ontological stance**

*(Nature of reality)*

Ontology refers to the understanding of the components and characteristics of a specific knowledge domain. Researchers aim to test hypotheses and gain a comprehensive understanding of reality by considering multiple perspectives. Scholars recognise that there can be both singular and multiple realities (Kaushik & Walsh, 2019).

Researchers' ontological perspectives typically fall into two categories: objective and subjective. Objectivist researchers believe that the social reality can be determined independently of social actors, while subjectivist researchers argue that humans assign meaning to the phenomena around them, unlike objects and animals.

In the context of this research, which aims to measure the prevalence and risk of vicarious trauma among nurses working in addiction services and explore the association between leadership and vicarious trauma, the ontological stance taken is subjectivism. However, this research also acknowledges the importance of objectivist views on ontology (Kaushik & Walsh, 2019). By adopting a mixed methods approach, an intermediate ontological position can provide a more comprehensive understanding of the social phenomenon under investigation (Ansari *et al.*, 2016). Therefore, while recognising the need to consider both perspectives, an intermediate ontological position is adopted, acknowledging the usefulness of both objective and subjective views of reality in social science studies (Ansari *et al.*, 2016, p. 135).

### **3.2.5 Epistemological stance**

*(How we know what we know)*

Epistemology, a branch of philosophy focused on the study of knowledge, is relevant in this study. Epistemologically, in line with pragmatism, the study adopts a practical approach by collecting data based on "what works" to address research questions. The hypothesis is that vicarious trauma and different leadership values may impact nurses

working in addiction services and their well-being (Kaushik & Walsh, 2019). While some researchers treat epistemology and methods as synonymous, it is important to distinguish between the logic of justification and specific data collection and analysis methods (Johnson & Onwuegbuzie, 2004). Epistemology does not dictate the specific methods to be used in a research study.

According to Creswell (2003), the researcher's relationship with the research participants can help identify the epistemological position. If the researcher seeks knowledge objectively, setting aside personal perspectives, it may be termed as "positivism." Positivists argue that there is one objective reality independent of human experience. On the other hand, if the researcher believes in the interaction between themselves and the subjects, a "phenomenological" epistemology is followed. Phenomenologists or interpretivists consider the world as a complex entity understood through subjective meanings assigned by individuals (Nickerson, 2024).

Pragmatic researchers, as Cherryholmes (1992) suggests, prioritise the notion of "what works" to address research questions. This may involve different methods and the value placed on both objective and subjective knowledge. The theory of continuum proposed by Teddlie & Tashakkori (2009) can be applied to the researcher-participant relationship, emphasising a continuum rather than favouring one perspective over the other.

In the study of vicarious trauma within nursing practice, there is an initial objective data collection, followed by the exploration of personal experiences of nurses. The relationship between the researcher and participant is expected to be on a continuum, aligning with the approach advocated by Teddlie & Tashakkori (2009), to gain a better understanding of the realities involved. An intermediate viewpoint on epistemology, acknowledging both positivist and phenomenological approaches, can be adopted, as suggested by Ansari *et al.* (2016), similar to the ontological position discussed earlier.

### **3.2.6 Axiological stance**

*(Role of values)*

Axiology, the study of value, is an important consideration in research, as it influences the choices and perspectives of the researcher. Despite being often overlooked in dissertations, it is essential to provide a detailed and holistic explanation of the axiology of this research to acknowledge and address potential biases and incorporate the researcher's values and experiences into the inquiry process.

Pragmatic axiology, however, has faced criticism and raised concerns. Morgan (cited in Biddle & Schafft, 2015) questions whether researchers who use pragmatism as a rationale for mixing methods truly engage with the axiological imperative of pragmatism. Deweyan pragmatism, which promotes a highly contextualised axiology, focuses on the practical difference that actions make in relation to a social good. It emphasises the concept of good as determined through an independent compromise and justifies principles based on optimal progressions of action that can be renegotiated in light of new information (Sorrell, 2013).

In this study, both biased and unbiased perspectives are considered in alignment with the pragmatic stance, aiming to contribute to the development of a social good. The selection of values for this research draws from personal experiences of both the researcher and the participants, as well as objective and rational values, as they all play a role in resolving the research aims. By acknowledging and explicating the axiological position of the researcher, potential biases can be addressed, and the integration of personal and objective values can contribute to a more comprehensive understanding of the research topic.

### **3.3 Research Purpose Statement & Objectives**

The previous chapter (literature review) emphasised the importance of understanding vicarious trauma for its prevention. It also highlighted the evident lack of literature addressing this issue among nurses working in addiction services. Therefore, the present

study is essential in bridging this knowledge gap. The aim and objectives of the study were presented in the first chapter (introduction), but it is important to reiterate them here: The aim of this study is to measure the prevalence and risk of vicarious trauma among a sample of nurses working in addiction services and to explore the association between leadership and vicarious trauma. This will be achieved through the utilisation of an explanatory sequential mixed methods design, where quantitative data is collected, and the results are explained using in-depth qualitative data.

The specific objectives of the study are as follows:

1. To quantify the prevalence of vicarious trauma and identify associated risk and protective factors among nurses working in addiction services. (QUANT)
2. To examine the relationship between leadership and the occurrence of vicarious trauma among nurses in addiction services. (QUANT)
3. To explore nurses' personal experiences of vicarious trauma and their perceptions of protective factors that may mitigate its impact. (Qual)
4. To investigate nurses' perspectives on leadership and its role in minimising the occurrence of vicarious trauma. (Qual)
5. To utilise the findings derived from the study to develop evidence-based guidelines for minimising vicarious trauma among nurses working in addiction services, with a particular focus on enhancing effective leadership practices. (Integration)

By addressing these objectives, this research aims to contribute to the existing knowledge base, provide insights into the prevalence and risk factors of vicarious trauma, explore the role of leadership in this context, and ultimately facilitate the development of guidelines to support nurses in minimising vicarious trauma and promoting their well-being while working in addiction services.

### **3.4 Design of this Research**

The study used a sequential explanatory mixed methods design (Ivankova et al., 2006). Mixed methods research is increasingly gaining favour in the field of nursing because it allows for a comprehensive understanding of nursing phenomena (Doorenbos, 2014). It involves the combination of both quantitative and qualitative techniques to obtain a more nuanced perspective. However, the use of mixed methods has been associated with various issues (Halcomb, 2018; Wasti et al., 2022). One common problem is the absence of an explanation for choosing mixed methods, which can lead to confusion during the study's design phase. Creswell (2015) suggests that as mixed methods become more widely known and accepted, the need to explicitly justify their use may diminish. Nevertheless, it is crucial to emphasise that mixed methods are essential when neither qualitative nor quantitative research alone can provide a complete understanding of the problem at hand. In the following paragraphs, these justifications will be thoroughly elucidated.

#### **3.4.1 Rationale for employing a Mixed Methods Design in this study.**

Both qualitative and quantitative research approaches have their limitations (Almeida, Faria, & Queirós, 2017; Wasti et al., 2022). Quantitative research provides numerical data but may overlook personal experiences, while qualitative research cannot generalise findings from a small group to a larger population. By combining these two methods, the weaknesses of each approach can be mitigated, and their strengths can be utilised to provide a strong rationale for using mixed methods (Almeida, Faria, & Queirós, 2017).

In the specific context of this study, the objectives to quantify the prevalence of vicarious trauma, identify associated risk and protective factors, and measure the association between leadership and vicarious trauma required the use of both qualitative and quantitative methods. Purely quantitative research would not have allowed for exploring nurses' experiences of vicarious trauma or their perceptions of protective factors. Likewise, purely qualitative research would not have been sufficient to quantify the prevalence or measure the association between variables.

Using mixed methods in this research enabled the researcher to obtain two different perspectives. The quantitative phase provided closed-ended responses and numerical measurements, while the qualitative phase allowed for a deeper exploration of the primary results through individual experiences. This comprehensive approach provided a more holistic view and allowed for the collection of more data compared to using qualitative or quantitative methods individually.

The scarcity of mixed methods studies in the field of vicarious trauma and nursing practice can be attributed to the specific research objectives and perspectives chosen by previous researchers. Depending on the aims of the study, researchers may have opted for either quantitative or qualitative methods. In this particular case, the decision to combine quantitative and qualitative methods was driven by the researcher's prior experience with qualitative research and the need for more comprehensive information.

Ultimately, the use of mixed methods in research should be guided by the goal of answering important research objectives in the most effective and informative way possible (Doorenbos, 2014).

#### **3.4.2 Rationale for the selection of a Sequential Explanatory Mixed-Methods Design**

McEvoy and Richards (2006), citing Creswell, assert that researchers must meticulously consider the rationale behind employing a combination of methods due to the significant potential for confusion. This principle applies to every decision made throughout the research process. The present study employed a mixed-methods explanatory sequential design, comprising two distinct phases: quantitative followed by qualitative (Creswell *et al.*, 2003) (see Figure 3.1).

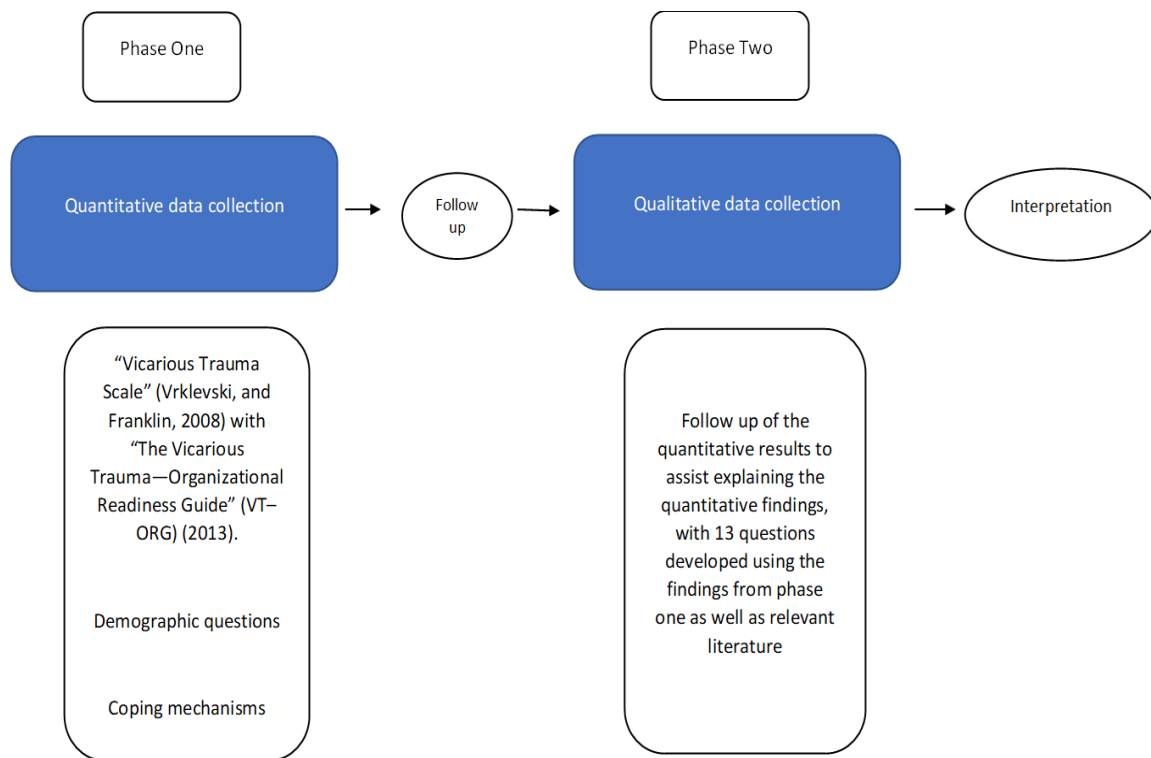


Figure 3.1 Explanatory Sequential Mixed Methods -(modified figure from Creswell's book, 2014).

In their book "Designing and Conducting Mixed Methods Research," Creswell and Plano Clark (2018, pp. 79) provide an overview of the process employed to implement a typical two-phase explanatory design. Step one involves designing and implementing a quantitative phase, while the second step aims to establish strategies for connecting to a second phase by identifying specific quantitative results that require further explanation. In the third step, the researcher designs and implements the qualitative phase. Finally, the interpretation and connection of the results occur in the fourth phase.

To assist researchers in making key decisions prior to selecting a mixed methods design, Creswell and Plano Clark (2007) propose the use of a "decision tree." When considering the timing of the research, researchers must determine the order of data collection and whether it will be concurrent (simultaneous collection) or sequential (one set collected before the other). Another decision involves the importance or weight assigned to the quantitative and qualitative methods. Researchers can either assign equal weight to both approaches or give priority to one over the other.

Figure 3.2 presents the decision tree for this research study, as outlined by Creswell and Plano Clark (2007), followed by a detailed rationale for each decision in this research.

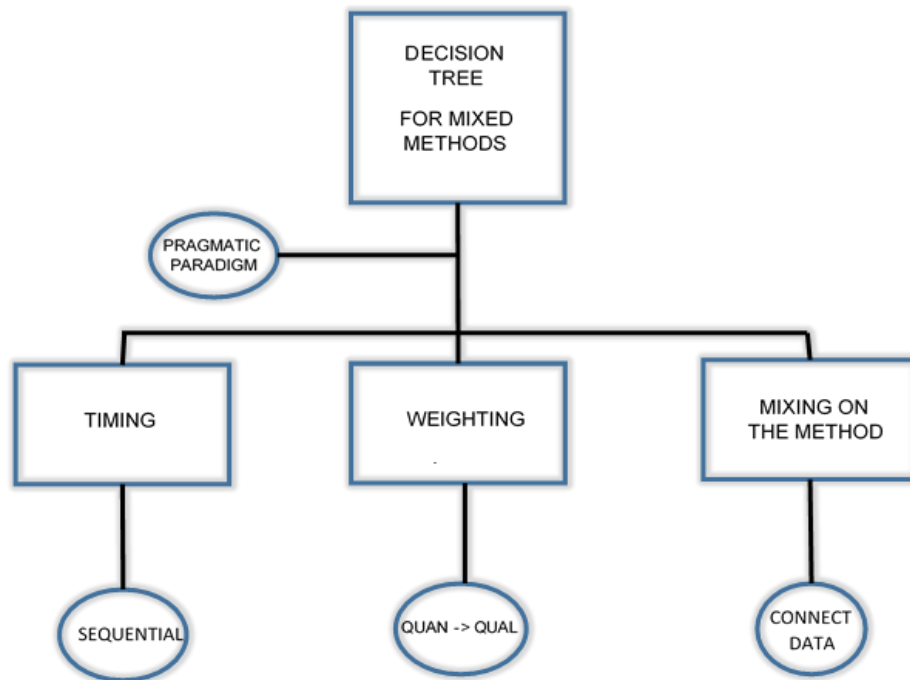


Figure 3.2 *Decision Tree (adjusted from Creswell and Plano Clark, 2007)*

**TIMING DIMENSION** - Regarding the timing dimension, Creswell (2006) explains that timing refers to the temporal relationship between the quantitative and qualitative components within a study (pp. 81). In a sequential explanatory design, data collection and analysis occur in two distinct phases, with one preceding the other. This study aligns with the explanatory design process by employing two distinct phases: first, a quantitative phase, followed by a qualitative phase. The primary objective of this design is to use the qualitative phase to explain the results of the quantitative phase (Creswell & Plano Clark, 2018). The existence of significant variables and easy access to surveys proved highly beneficial for this study in measuring the prevalence of vicarious trauma and associated risk and protective factors among nurses, as well as its association with leadership. Consequently, in the first phase, a survey was administered to European nurses, followed by an examination of the results and the subsequent development of interview questions.

WEIGHTING DIMENSION - Regarding the weighting dimension, Hanson *et al.* (2005) describe this stage as the researcher's determination of which phase of data collection should be given precedence. In this research, following an explanatory design, both phases are regarded as equally significant in fulfilling the study's objectives. However, the quantitative phase held greater weight in terms of time allocation since it served as the foundation for generating follow-up questions in the subsequent qualitative phase. Nevertheless, the study made an effort to allocate resources and priority equally to both phases, striving to devote equivalent attention and emphasis to each.

MIXING DIMENSION - The mixing dimension, the third consideration in selecting a mixed methods design, entails determining how the quantitative and qualitative methods will be combined. As Creswell (2006) emphasised, "a study that includes both quantitative and qualitative methods without explicitly mixing the data derived from each is simply a collection of multiple methods" (pp. 83). A robust and rigorous study addresses the rationale for mixing the data, in addition to considering the timing and weighting dimensions. Four procedures for mixing quantitative and qualitative methods have been discussed in the literature: connecting, building, merging, and embedding data (Creswell & Plano Clark, 2017). This research employs the connecting approach, analysing the survey dataset and using the analytical results to inform subsequent data collection, specifically the development of interview questions. In this manner, the integration between quantitative and qualitative information is achieved by connecting the analysis of results from the two phases (NIH Office of Behavioral and Social Sciences, 2018). This process was visually represented using a Joint Display.

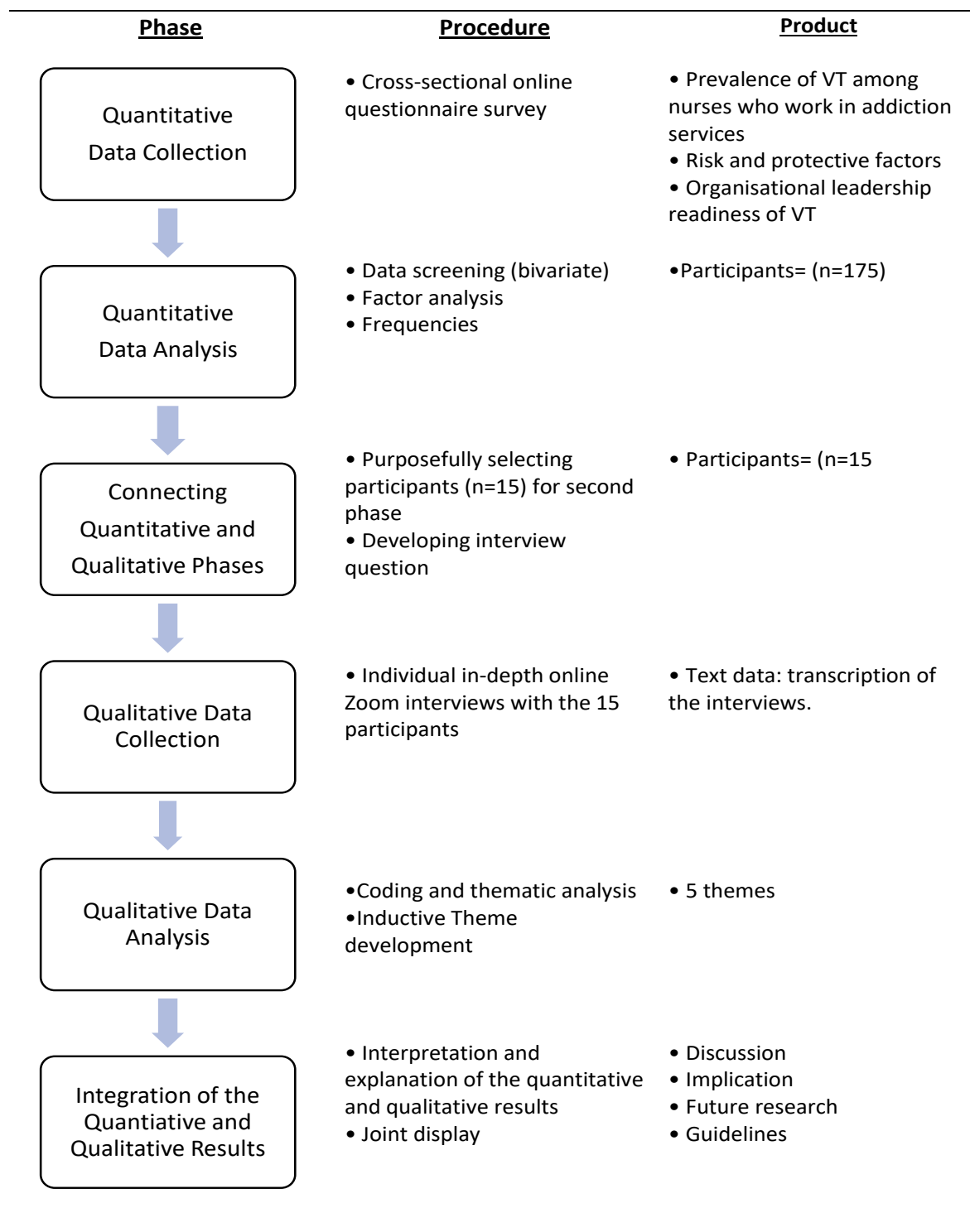


Figure 3.3- Visual model for current Research Mixed-Methods Sequential Explanatory Design (Ivankova et al., 2006)

### **3.4.3 Inclusion and Exclusion Criteria**

According to Polit and Beck (2006), a population refers to a complete aggregation of cases that meet specific criteria. In this research, inclusion and exclusion criteria were established at the outset to define the study population. Defining eligibility criteria is crucial for understanding the population to which the research findings can be generalised (Garg, 2016; Polit & Beck, 2006). The target population for this study consists of nurses working in addiction services, including those involved in the care of individuals with addiction problems. The inclusion and exclusion criteria for both phases of this research are outlined below:

1. Registered Nurses (RNs) actively employed in healthcare roles involving direct patient care in addiction area.
2. Nurses who frequently encounter and provide care to patients with addiction-related problems as part of their regular job responsibilities.
3. Nurse managers or supervisors responsible for overseeing patient care, with a focus on addiction-related cases.
4. Nurses proficient in the English language to ensure proper communication for obtaining informed consent and facilitating effective interactions during the study.

Exclusion Criteria:

1. Nurses who are not directly involved in patient care or do not have regular interactions with individuals with addiction problems.
2. Nursing assistants or other healthcare professionals who are not classified as registered nurses.
3. Nurses with insufficient proficiency in the English language, hindering the process of obtaining informed consent and effective communication.

### **3.5 Implementation Phase**

This paragraph examines the practical implementation, beginning with a thorough examination of ethical considerations that have guided this research. It then elucidates

the recruitment strategies, for the quantitative phase and the qualitative phase. Subsequently, this research explores the intricacies of survey questionnaire design and qualitative interview preparation, followed by an in-depth discussion of the measures chosen for the research instruments. Finally, the methods employed for data collection are unveiled, collectively providing a comprehensive overview of the processes that underpin this research.

### **3.5.1 Ethical considerations**

This research received approval from the Faculty of Health Sciences Research Ethics Committee on November 10th, 2020. Ethical concerns are prevalent in nursing practice, and the field of nursing research has seen an increasing emphasis on ethical considerations (Polit & Beck, 2006), as discussed in the previous paragraph.

Prior to data collection, several important ethical considerations were addressed in this research. The study adhered to the principles outlined in the General Data Protection Regulation (GDPR) and followed the "Code of Professional Conduct and Ethics" developed by the Nursing and Midwifery Board of Ireland (NMBI). The protection and well-being of the participants in both phases of the study were of utmost importance, and a high standard of ethical principles was maintained.

Detailed consent forms and Information leaflets were provided to participants to ensure they were fully informed about the research and able to make an autonomous decision to participate (Appendix 1 a, 1 b and 1 c). It was emphasised that participation in the study was voluntary, and participants had the right to refuse or withdraw from the study at any time. The potential risks and benefits associated with participation were clearly explained. Given that the participants were professional nurses working in addiction services, no potential adverse outcomes were anticipated.

To safeguard participant anonymity, pseudonyms were assigned to each participant during the second phase of the research (Kang & Hwang, 2023). The collection and storage of data adhered to strict confidentiality guidelines (Polit and Beck, 2006; Kang & Hwang, 2023). The digital data was securely stored on a personal server of Google Drive within

Trinity College Dublin's School of Nursing and Midwifery, and no physical documents were collected.

Informed consent was obtained from each participant prior to data collection. During the survey, participants were initially asked for their consent to use their responses anonymously. In the qualitative phase, participants were provided with digital consent forms, and their e-signatures were obtained before commencing the interviews. These measures were taken to ensure the ethical treatment of participants and protect their rights throughout the research process.

### **3.5.2 Sampling Strategy**

#### Quantitative Phase One: Sampling of Study Participants

This phase involved the use of convenience sampling to select participants for the research. The decision to employ convenience sampling was made based on its practicality and ease of data collection. The final sample size was not predetermined during the initial stages of data collection, but it was guided by a power analysis for a regression model that considered 10 potential independent variables (Total sample size  $N = 50 + 8m$ , where the number of independent variable  $m = 10$ , hence we have  $N = 50 + 8(10) = 50 + 80 = 130$ ). This calculation draws on the guidelines provided in the book "Multivariate Statistics" by Tabachnick and Fidell (2019). Statistical power in regression analysis refers to the likelihood of obtaining significant findings when a significant relationship exists within the population (Polit & Beck, 2006). In addition, Cohen (1992) was checked for adequacy of the sample size. According to Cohen if we wish to explore correlations between two variables with a power of 80% and p value 0.05 then the total sample size of at least 85 is required.

#### Qualitative Phase Two: Sampling of Study Participants

This phase employed a purposive sampling approach, a prevalent practice within mixed methods research designs. Typically, in such designs, identical participants are selected for both quantitative and qualitative data collection to facilitate the integration of data. In the qualitative phase, participants were self-selected from the initial quantitative phase. Specifically, individuals who expressed an interest in participating in face-to-face

interviews were invited to provide their email addresses upon completing the questionnaire. This information was collected to enable subsequent contact for participation in the second qualitative phase of the study. While a predetermined sample size was established, the goal was to secure interviews with a minimum of 10 nurses to achieve data saturation.

### **3.5.3 Survey Questionnaire Design and Qualitative Interview Preparation**

#### Quantitative Phase One: Survey Questionnaire

A survey design is employed to numerically describe trends, attitudes, or opinions within a sample population (Creswell, 2014). For this research, a survey was chosen as the preferred method of data collection to quantify the prevalence of vicarious trauma among nurses working in addiction sectors and to examine the association between leadership and vicarious trauma in this specific population. The aim of the survey was to generalise findings within this population and draw inferences regarding similar attitudes, characteristics, and behaviours among nurses working with individuals with addiction problems. The survey adopted a cross-sectional design, meaning that data were collected at a single point in time (Creswell, 2014).

To collect data, two existing scales were utilised: the "Vicarious Trauma Scale" (VTS) developed by Vrkleviski and Franklin (2008) (Cronbach's  $\alpha = 0.8$ ; Benuto *et al.*, 2018), in conjunction with "The Vicarious Trauma—Organisational Readiness Guide" (VT-ORG) (Cronbach's  $\alpha = .98$ ) (2013) (refer to appendix 8). In the first quantitative phase, it was crucial to measure the levels of vicarious trauma among nurses, and the VTS (Vrkleviski & Franklin, 2008) facilitated the assessment of subjective distress levels associated with working with traumatised patients. The VTS consists of eight items, with response options ranging from strongly disagree (1) to strongly agree (7). Appendix 10 presents a summary of the responses, including the frequency and valid percentage, based on 147 valid responses and 13 missing data. Outliers and missing data were identified and retained (refer to Appendix 11).

To obtain a total VT score, the responses to the eight items were summed, with higher scores indicating greater exposure to vicarious trauma (Aparacio *et al.*, 2013). According

to Aparacio *et al.* (2013), who had personal communication with Vrkleviski, the creator of VTS (2008), scores within the range of 8 to 28 indicate low VT, 29 to 42 indicate moderate VT, and 43 to 56 indicate high VT.

The Vicarious Trauma Organisational Readiness Guide (VT-ORG) is designed to evaluate an organisation's preparedness in addressing vicarious trauma (Hallinan *et al.*, 2019). This scale was developed to identify and address staff needs in five evidence-informed areas of organisational health: (1) Leadership and Mission, (2) Management and Supervision, (3) Employee Empowerment and Work Environment, (4) Training and Professional Development, and (5) Staff Health and Wellness. The VT-ORG was selected to address the second objective of describing and assessing the nature of leadership in nurses' work. It assists organisations in evaluating their capacity to address employees' work-related exposure to trauma and emphasises the importance of recognising and meeting staff needs across the aforementioned areas of organisational health.

Permission to use the VTS was obtained by contacting the author Vrkleviski, who provided consent (Appendix 2). The creators of the VT-ORG granted permission for its use, as it was made available for public use with certain limitations, such as prohibiting its sale and modification.

Data were collected through an anonymous online questionnaire created using the Qualtrics software. The survey incorporated both the VTS and VT-ORG scales. In addition to those two scales, seven demographic questions were asked: age, gender, education, current position at work, length of time in current place of employment, experience in the field of addiction and country. Additionally, participants were queried about their preferred coping mechanisms: mindfulness, self-care, supervision, peer support, healthy lifestyle, detachment, boundaries, education and social support. Those nine coping mechanisms were selected as they were identified through the literature review. There were three possible answers for these: never, occasionally, and often.

### Qualitative Phase Two: Qualitative Interview Preparation

The interview questionnaire was developed subsequent to the quantitative data analysis conducted in phase one. This second phase was an integral component of the follow-up

stage, and the questions devised were designed to correspond with the specific findings from the quantitative phase that warranted further in-depth exploration and investigation.

Before conducting each interview, the necessary steps were taken to ensure the technical aspects were in order. The audio and video settings of the computer were tested to ensure they were functioning properly, and the Wi-Fi and internet connection were checked to ensure a stable connection. Clear and audible recordings were crucial to ensure accurate automatic transcription using audio transcription for Cloud recordings on Zoom software. In addition to the practical preparations, the importance of examining the researcher own influence and self-reflection were acknowledged. Prior to commencing the interviews, it was essential for the researcher to gain deeper understanding of their position and interests in the research (Streubert & Carpenter, 2011). This process of self-reflection is referred to as reflexivity in qualitative inquiry, which acknowledges the researcher's personal influence on the research process (Streubert & Carpenter, 2011). Once the researcher was aware of the potential impact their knowledge and values could have had on the interpretation of findings, data collection began.

Several authors emphasise the key factors for successful interviews, including Streubert and Carpenter (2011) and Bolderston (2012). They agree that interviews should be characterised by interdependence, mutual trust, and respect between the researcher and participants. The researcher recognised the importance of establishing a connection with the participants and creating an environment of trust during the interviews.

Moreover, the researcher took into consideration the social and cultural context of each participant. Since the participants were from different countries (Ireland, Netherlands, Portugal, Denmark), the researcher found it important to enquire about the general nursing system in the participant's respective country. This consideration helped to contextualise the participants' perspectives within their specific social and cultural contexts.

### **3.5.4 Validity and Reliability of Quantitative and Trustworthiness of Qualitative Phases**

#### **Quantitative Phase One: Validity and Reliability of Quantitative Phase**

The reliability of an instrument is an essential consideration in research, as it reflects the consistency and accuracy of the measurements obtained. When using established scales like the VTS and VT-ORG, it is important to ensure that they possess adequate reliability to produce dependable and consistent results.

The VTS scale, developed by Vrkleviski and Franklin (2008), has undergone extensive validation and reliability testing. Its construct validity refers to the extent to which the scale measures the intended concept of vicarious trauma and the associated distress levels. The study by Benuto *et al.* (2018) supports the construct validity and reliability of the VTS scale, indicating that it consistently measures vicarious trauma and its related distress levels. This provides assurance that the VTS scale is a reliable tool for assessing subjective distress levels associated with working with traumatised patients.

Similarly, the VT-ORG scale, developed by Hallinan *et al.* (2019), has been rigorously validated and shown to be a reliable measure of organisational responses to vicarious trauma. Reliability in the context of the VT-ORG scale refers to the consistency of its measurements in assessing various dimensions of organisational health related to vicarious trauma. The study by Hallinan *et al.* (2019) provides evidence for the reliability and validity of the VT-ORG scale, supporting its use in assessing organisational readiness to address vicarious trauma.

By using these established scales with demonstrated reliability and validity, the research ensures that the measurements obtained from the survey instrument are consistent and accurate. This strengthens the credibility of the research findings and allows for meaningful comparisons and interpretations of the data collected on vicarious trauma and organisational readiness.

#### Qualitative Phase Two: Trustworthiness of Qualitative Phase

Creswell's (2009) perspective on validity in qualitative research emphasises the importance of ensuring accuracy in research findings from multiple perspectives, including those of the participants, the researcher, and the reader. To achieve accuracy, Creswell suggests several strategies that can be employed:

1.      Relevance to research question: The researcher should ensure that the interview questions or data collection methods are directly aligned with the research question. This can be facilitated by creating a table or framework (see appendix 3) to ensure that each objective is addressed during data collection.
2.      Appropriate timing: Sufficient time should be allocated for the interviews, allowing both the researcher and the participants to ask questions, seek clarification, and provide comprehensive answers. This helps to ensure that the data collected is accurate and reflects the participants' perspectives.
3.      Triangulation: Using multiple sources of data in conjunction with the interviews, such as chart audits, surveys, or observation studies, can enhance the accuracy and reliability of the findings. Triangulation provides different perspectives and sources of evidence, reinforcing the credibility of the research.
4.      Member checking: Sharing the emerging themes or findings with the participants and giving them the opportunity to comment on their accuracy can help validate the interpretation of the data. This process promotes participant engagement and ensures that their voices are accurately represented.
5.      Rich description: The researcher should strive to provide a rich and detailed description of the participants' experiences, including any nonverbal communication. This helps capture the nuances and context of the data, enhancing the accuracy and depth of the findings.
6.      Reflexivity and bias: Researchers should be aware of their own biases and how they might influence the interpretation of the data. By acknowledging their biases and engaging in reflexive practices, researchers can mitigate the potential impact of bias on the accuracy of the findings.
7.      Seeking contrasting experiences: Actively seeking out contrasting experiences or perspectives can help challenge and refine emerging theories or interpretations. This

approach contributes to a more comprehensive understanding of the research topic and ensures that diverse viewpoints are considered.

8. External auditing: Involving peers or experts who were not directly involved in the research process to provide an objective assessment of the research design, data collection methods, and findings can enhance the overall validity and credibility of the research.

By employing these strategies, researchers can enhance the accuracy and validity of qualitative research findings, providing a robust and comprehensive understanding of the phenomena under investigation.

### **3.5.5 Recruitment - Quantitative Phase and Qualitative Phase**

#### Quantitative Phase One: Recruitment for the Survey

The period of recruitment and data collection for this research lasted from the 5th of April 2021 until the 8th of July 2021. Given the inherent difficulties in recruiting nurses specialising in addiction services, participants for this study were recruited through the International Nurses Society on Addictions, specifically from the European chapters. The survey link and a participant information leaflet were emailed to the presidents of the four European chapters of the International Nurses Society of Addiction (IntSNA Ireland, IntSNA UK, IntSNA Portugal, IntSNA Netherlands). The presidents then forwarded the questionnaire to nurses working in addiction services and with individuals facing addiction problems. Additionally, other associations and organisations in Europe, such as the Drugs Research Network Scotland (DRNS), Danish Nurses Organisation, Irish Prison Services (Príosún Lár Na Tíre, Midlands Prison), Irish Psychiatric Nurses' Association, CADS (Community Alcohol and Drug Service), and the Private Addiction Clinic of Castle Craig in Scotland, were contacted. The link for the survey was circulated through social media (Facebook and Twitter).

#### Qualitative Phase Two: Recruitment of Interview Participants

One of the primary objectives of the research design was to utilise qualitative data to gain a deeper insight into the quantitative results. This approach is in line with the

recommended Explanatory Sequential Mixed Methods design, wherein participants for the qualitative phase voluntarily chose to participate from the group that had taken part in the quantitative data collection, as suggested by Creswell (2018). This self-selection marked the initial connection point in this mixed methods research. To facilitate this process, participants from the initial quantitative phase were invited to express their interest in the subsequent qualitative phase. As mentioned earlier, those who were interested in face-to-face interviews were asked to provide their email addresses at the end of the questionnaire. Following this, the researcher reached out to them to schedule potential interview dates, in line with Bell's (2009) observation that "you're not in charge: the respondents are, and you need them more than they need you" (p. 168). The response rate for the second phase was determined by calculating the number of participants who agreed to participate in the second qualitative phase interviews. According to Creswell (2018), in an explanatory sequential design, the qualitative data collection typically involves a smaller sample compared to the initial quantitative phase, as the intention is not to directly compare the data. Initially, the goal was to recruit a minimum of 10 nurses. Contingency plans were established in case an insufficient number of nurses expressed interest in participating after the first survey. Plan B involved reaching out to the presidents of the European chapters of IntNSA once again and requesting them to distribute the participant information leaflet for the second phase to the members specialising in addiction nursing.

### **3.5.6 Data Collection**

#### Quantitative First Phase: Data Collection

In this phase, quantitative data were collected through the utilisation of an anonymous online questionnaire, developed using the Qualtrics software platform. As mentioned before, this survey was distributed between 5th April 2021 and 8th July 2021. The Qualtrics questionnaire was developed by combining the VTS (Vicarious Trauma Scale) and VT-ORG (Vicarious Trauma Organisational Readiness Guide) scales mentioned earlier. Both scales utilised a 5-point rating system, where participants could choose from options ranging from 1 (never) to 5 (always). This allowed for easy integration of the responses and ensured a consistent design throughout the entire survey. The questionnaire consisted of a total of 83 questions. Participants were presented with answer choices

including "Never," "Rarely," "Sometimes," "Often," "Always," and "N/A" to indicate their response to each question.

The initial paragraph of the survey was dedicated to obtaining informed consent from the participants. This section outlined the purpose of the research, assured confidentiality and anonymity, and explained the voluntary nature of participation. The specific details of the informed consent paragraph can be found in Appendix 4.

In addition to the VTS and VT-ORG scales, another scale was included in the questionnaire to measure coping mechanisms. This scale was based on the work of Vrkleviski and Franklin (2008) and their study on vicarious trauma. The coping mechanisms included in the scale were chosen based on their common mention in the literature as effective strategies for managing vicarious trauma. The coping mechanism scale was placed after the section collecting demographic profile information from the participants. It aimed to assess the participants' use of various coping techniques in response to vicarious trauma. The specific coping mechanisms included in the scale were derived from the study by Vrkleviski and Franklin (2008) and were considered relevant and widely acknowledged in the literature.

#### Qualitative Second Phase: Data Collection

The data for the qualitative phase of this research were collected through semi-structured interviews. Thirteen questions were developed based on the quantitative results to guide the interviews, allowing participants the opportunity to expand on their answers and provide more in-depth insights (Appendix 5)

The interviews were conducted online using the Zoom video conferencing platform, from the 31<sup>st</sup> of May to the 8<sup>th</sup> of October 2021. According to Streubert and Carpenter (2011), using video calls in interviews provides the advantage of picking up visual cues, enhancing the quality of communication compared to telephone interviews. With the participants' permission and signed consent, all interviews were recorded using Zoom's recording feature. Originally, the utilisation of Microsoft Teams Meeting had been determined as the preferred platform. However, subsequent consultations with the Information

Technology experts at Trinity College Dublin (TCD) revealed the presence of a bug within the research system. Furthermore, it was observed that the student version of Microsoft Teams Meetings lacked the capability to schedule meetings. Consequently, a formal request was submitted to the Ethical Committee, seeking approval to employ Zoom as the designated platform for conducting the interviews. Subsequently, the Ethical Committee granted permission for the interviews to be conducted via Zoom. After each interview, the recording was securely uploaded into a restricted access folder on the researcher's TCD School of Nursing and Midwifery Drive. It is important to note that all computer-based data storage and handling procedures adhered to the principles of the General Data Protection Regulation (GDPR) to ensure the privacy and confidentiality of the participants' data.

### **3.6 Data Analysis Phase**

The data analysis phase commenced with the initial receipt of responses, primarily stemming from the quantitative data collection phase, followed subsequently by data gathered during the interview-based qualitative phase. Notably, the quantitative analysis phase required a more extended duration to complete than the qualitative phase, due to its substantial contribution to the research's overarching goals of delving deeply into core issues and crafting relevant follow-up questions for the ensuing qualitative phase.

#### **3.6.1 Response Rate**

##### Quantitative Phase One: Response Rate

For the quantitative phase, a total of N=175 responses were received. However, out of these responses, only N=160 questionnaire surveys were considered for analysis. The remaining N=15 surveys were excluded as they were less than 5% completed or insufficiently filled out to be included in the analysis. For a more comprehensive discussion of the response rate, please refer to Chapter 4 (Quantitative Research Findings), specifically in section 4.2. The data collected from the surveys were subsequently analysed using SPSS 2021 software, a statistical analysis software commonly used in research.

### Qualitative Phase Two: Qualitative responses rate

Although it was calculated to get 10 participants to be interviewed for the second phase, a significant number of nurses expressed their willingness to participate in the second phase. Initially, 30 responses were received, and each respondent's email address was carefully recorded (please refer to Appendix 6 a. for details). Subsequently, a follow-up email (Appendix 6 b.) was sent to all 30 respondents, inviting them to participate further in the research. However, it's important to note that, despite the initial interest, only 15 nurses demonstrated their availability and willingness to actively engage in this study. As a result, the valuable perspectives and experiences of these 15 dedicated nurses became the foundation of the exploration into the challenges and opportunities within the addiction services nursing profession.

### **3.6.2 Analysis of quantitative data and qualitative data**

#### Quantitative Phase One: Data Analysis

Once enough responses were collected, the data were stored on the researcher's TCD Drive server. An initial review of the gathered information took place using Qualtrics, specifically within the responses window. This provided an overview of the data. Subsequently, the data were entered into IBM SPSS (Statistical Package for the Social Sciences) to conduct more advanced analysis. The statistical analysis that was conducted within SPSS were: Descriptive Statistics (Mean, Median, Mode; Standard Deviation; Range; Frequency Tables), Inferential Statistics (T-Tests; Analysis of Variance; Chi-Square Test; Correlation Analysis; Regression Analysis; Crosstabs and Contingency Tables), Multivariate Analysis.

Within SPSS certain variables were combined or grouped together. For example, the age groups initially ranged from 18-25, 26-35, 36-45, 46-55, 56-65, to 65+. During the statistical analysis, these were reconfigured into three categories: 18-35, 36-55, and 56-65+. This adjustment was made because there were less participants in some of the age ranges such as only one participant was in the 65+ category, and it was more meaningful to group them with others for the analysis. Additionally, groupings were made to the Vicarious Trauma Scale score responses. To determine the prevalence of vicarious trauma among nurses working in addiction services, the participants were divided into two

distinct groups based on their original VT scores. The categorisation criteria were as follows: a VT score below 28 indicating an acceptable level of exposure to trauma without significant distress, and a VT score between 29 and 56 indicating distressing levels of vicarious trauma. This binary division was used to highlight the noteworthy occurrence of vicarious trauma within this specific group. Importantly, the decision to use this particular categorisation approach was discussed and validated through online communication with Lila Petar Vrklevski, the author of the VT Scale (VTS). She expressed her endorsement of this approach, and further information can be found in Appendix 7.

### Qualitative Phase Two: Data Analysis

A number of choices have to be explicit when using thematic analysis (TA) to analyse qualitative data (Braun & Clarke, 2006). This qualitative second phase was conducted to align with essentialist/realist thematic analysis, which provides a rich thematic description of the entire data set. The TA was conducted using an inductive approach, at a latent level that goes beyond the semantic content of the data, and started to identify the underlying ideas, assumptions, and conceptualisations of the participants (Braun & Clarke, 2006). In the research process, several forms of analysis were considered, including content analysis, grounded theory, and narrative analysis. The decision to use TA with an inductive approach, was made based on the research aims and the nature of the qualitative data collected. Thematic analysis was deemed most appropriate because it allows for a flexible and iterative exploration of qualitative data, facilitating the identification of patterns, themes, and conceptual insights within the data (Braun & Clarke, 2006). This approach aligns with the research objective of gaining a comprehensive understanding of the phenomenon under investigation, as thematic analysis enabled this research to investigate deeply into participants' experiences, perspectives, and interpretations without imposing preconceived notions or theoretical frameworks.

Additionally, an inductive approach was chosen to ensure that the analysis process remained grounded in the data itself, allowing for the emergence of themes and patterns directly from the participants' narratives. This approach fostered an open and exploratory stance towards the data, enabling this research to capture the richness and complexity of participants' lived experiences without imposing predetermined categories or structures

onto the data. Ultimately, the decision to use thematic analysis with an inductive approach was driven by the desire to conduct a rigorous and systematic analysis that honoured the voices and perspectives of the participants while also providing valuable insights into VT and leadership.

This second qualitative phase followed the six steps of TA: (1) Familiarisation of the data, (2) Generating initial codes, (3) Searching for themes, (4) Reviewing themes, (5) Defining and naming themes, and (6) Producing the report (Braun & Clarke, 2006). Firstly, the researchers engaged in the crucial stage of familiarisation with the gathered data, immersing herself in the content to gain a deep understanding of its nuances and complexities. Subsequently, initial codes were generated through a systematic process on MAXQDA, of identifying meaningful patterns and segments within the data, marking the initial steps towards thematic exploration. The subsequent phase involved a comprehensive search for overarching themes, wherein the researchers sought to uncover recurring patterns and concepts that emerged from the data. Following this, the identified themes underwent rigorous review and scrutiny to ensure their coherence and relevance to the research objectives. Through careful deliberation, themes were then defined and succinctly named, encapsulating the essence of the underlying concepts they represented. Finally, the culmination of the analysis process involved synthesizing the findings into a comprehensive report, where the identified themes were expounded upon, supported by pertinent data excerpts and analytical insights.

Given that the data for this study were gathered in 2021, the researcher opted to employ the Braun and Clarke (2006) guidelines for thematic analysis. Despite the passage of time since their publication, Braun and Clarke explicitly stated that their guidelines remain applicable to research conducted with data collected before 2021. As the analysis commenced towards the end of 2021, adherence to these established guidelines provided a structured and systematic approach to interpret the collected data.

The interviews were transcribed using Microsoft Teams Meetings software, and the transcribed data were carefully checked for transcription errors. The transcribed data were then imported into MAXQDA, a software program designed for qualitative data

management and analysis. The analysis process involved categorising the data into themes or categories, allowing for the grouping of evidence and the labelling of ideas for further exploration. MAXQDA enabled the researcher to block and label text segments with codes, facilitating the identification of themes and the examination of relationships between them. The findings from the thematic analysis are presented in Chapter 5 of the study, using quotes, multiple perspectives, and rich descriptions to provide evidence for the identified themes.

### **3.7 Integration of Methods**

Integration of methods involves a deliberate and planned approach to combine qualitative and quantitative data and observations in order to draw conclusions (referred to as inferences) from separate qualitative and quantitative phases. Additionally, it includes drawing conclusions (known as meta-inferences) after integrating qualitative and quantitative findings together (Creswell & Plano Clark, 2018). Fetters *et al.* (2013) created a widely recognised and frequently utilised categorisation system for integration methods, consisting of four techniques: connecting, building, merging, and embedding. In this study, the "Connecting" approach was employed first, which involves choosing a sample for the qualitative phase based on the quantitative phase. Hence, the first point of integration when the quantitative results from the initial phase were used to inform the selection of participants for the qualitative follow-up phase. This helped in further exploring and explaining the quantitative findings. The qualitative data was then collected and analysed in the second phase. Finally, the integration of the two sets of results occurred, allowing for a comprehensive understanding of how the qualitative findings explain and extend the quantitative results (Creswell, 2018). This last integration used a joint display, a recommended tool for integrating data analysis and interpretation (Guetterman *et al.*, 2021). Joint displays help compare qualitative and quantitative results, revealing patterns and discrepancies (Guetterman *et al.*, 2015; McCrudden *et al.*, 2021). The choice of a follow-up results joint display is explained in the Integration Chapter 6.

### **3.8 Management of reflexivity**

In this study, the researcher placed particular emphasis on the ongoing management of bias, especially within the qualitative segment. Diligent engagement in reflexivity was maintained throughout the research process, with consistent reflection on personal perspectives, assumptions, and potential biases. Supervision sessions with the researcher's supervisor served as invaluable opportunities for debriefing and upholding methodological rigour. Through these discussions, active efforts were made to address any biases that may have influenced data collection, analysis, or interpretation. Despite encountering findings that challenged initial expectations or personal preferences, the researcher remained committed to presenting them objectively and accurately. By prioritizing transparency and integrity, the aim was to minimize bias and uphold the credibility of the study's findings.

### **3.9 Limitations and Issues of this Mixed Method Research**

Mixed methods research, despite its strengths, also has certain limitations. One practical issue is the level of expertise and knowledge required by researchers to effectively handle both qualitative and quantitative methods, as they inherently differ from each other (Bazeley, 2004; Harper, 2019). In this study, the researcher took proactive measures to acquire knowledge by referring to specialist books, participating in online seminars offered by MMIRA (Mixed Methods International Research Association), and engaging with fellow mixed methods PhD candidates for information exchange and support. However, the lack of closer peer support might have impacted the depth and breadth of knowledge.

Another limitation of mixed methods research is the time-consuming nature of collecting both quantitative and qualitative data (Johnson & Onwuegbuzie, 2004). The researcher needs to devote sufficient time and resources to collect and analyse data from both approaches, which can extend the overall research timeline.

Additionally, conveying unfamiliar methods to the audience can pose a challenge in mixed methods research. Readers who are more accustomed to either quantitative or qualitative approaches may find it challenging to understand and interpret the integrated

findings (Bazeley, 2004). Clear communication and explanation of methods become crucial to overcome this limitation.

Bazeley (2004) highlights some critical issues of mixed methods research, including the clarity of purpose, awareness of the limitations of traditional methods in a mixed method environment, appropriate use, and interpretation of quantitative coding from qualitative data, treatment of "error" or "deviance," and appropriate generalisation based on sample and methods.

The pragmatic assumption underlying mixed methods research is that neither quantitative nor qualitative methods alone can provide a complete analysis (McEvoy and Richards, 2006). However, adopting a pragmatic approach may introduce methodological tensions that are challenging to resolve (Johnstone, 2004). This chapter aims to clarify the philosophical and methodological position taken in support of this study, addressing any potential doubts or concerns.

This particular research could have encountered several limitations in its mixed methods nature, such as challenges in effectively integrating quantitative survey data with qualitative interview findings, potential limitations in the depth of exploration during the sequential explanatory design, and the inherent subjectivity and bias introduced by researcher interpretation and integration of multiple data sources.

### **3.9 Conclusions**

In conclusion, this chapter has provided a comprehensive overview of the philosophical underpinnings, research design, and methods employed in this study. This research journey has involved a thorough exploration of philosophical assumptions and methodological designs, as outlined in this chapter. The explanatory sequential mixed methods design employed in this study involved initially collecting quantitative data, which then informed the subsequent qualitative data collection.

The study comprised two distinct phases: an initial survey questionnaire (Phase 1) and a follow-up qualitative phase (Phase 2) involving semi-structured interviews with nurses

working in addiction services. The data analysis process involved three phases: analysing the initial quantitative data, analysing the follow-up qualitative data, and examining how the qualitative data helps explain the quantitative data (Creswell, 2018). This integrated approach allowed for a comprehensive understanding of the research topic and facilitated a more nuanced interpretation of the findings.

Nursing research holds significant importance in addressing challenges within clinical settings. Despite the evolving nature of the nursing field, research has gained traction as nurses recognise its potential to improve patient care and outcomes. Challenges associated with nursing research, such as subject accrual and obtaining cooperation, have been acknowledged.

The research context has been elucidated, focusing on the taxonomical dilemma surrounding nurses working with individuals struggling with addiction in Europe. The knowledge gap in this area was emphasised, particularly concerning the relationship between vicarious trauma and nurses in addiction services.

The rationale for adopting a mixed methods design, specifically a sequential explanatory mixed methods design, has been meticulously explored. This approach was chosen to effectively address the research objectives by integrating quantitative and qualitative data. Pragmatism served as the guiding philosophical stance, acknowledging both objective and subjective realities. An intermediate ontological and epistemological stance was chosen to accommodate the complexities of the research topic. The researcher's axiological standpoint was disclosed, recognising the integration of personal and objective values.

The decision tree was employed to explain the timing, weighting, and mixing dimensions of the research design. The sequential explanatory design involving a quantitative phase followed by a qualitative phase was selected to provide a holistic understanding of vicarious trauma among nurses in addiction services. The connecting approach for mixing data was adopted, with the quantitative results informing the qualitative phase.

The next chapter presents the findings from the first quantitative phase.

# Chapter Four

## Quantitative Research Findings

### 4.1 Introduction

This chapter marks the beginning of the study's findings. This chapter will present the results of the quantitative phase one, which addresses objectives 1 and 2 of the research:

1. To quantify the prevalence of vicarious trauma and identify the associated risk and protective factors among nurses working in addiction services.
2. To measure the relationship between leadership and the occurrence of VT among nurses in addiction services.

To achieve these objectives, a questionnaire survey was created using Qualtrics software (2021), which was distributed between 5th April 2021 and 8th July 2021, spanning approximately three months until the target sample size was reached.

As discussed in the previous chapter (Chapter 3: Methodology), the questionnaire survey was designed by combining two existing scales: the "Vicarious Trauma Scale" (VTS) (Vrklevski and Franklin, 2008), which assesses the prevalence of VT among participants, and "The Vicarious Trauma—Organisational Readiness Guide" (VT-ORG) (2013), used to investigate the role of leadership at the organisational level in preventing and addressing VT. Additionally, the survey included seven demographic questions covering age, gender, education, current job position, length of employment at the current workplace, experience in the addiction field, country and the participant's preferred coping mechanisms.

This chapter will provide an overview of the response rate and survey distribution, followed by a detailed demographic profile of the participants, along with a

comprehensive analysis. Subsequently, it will delve into the findings derived from the first quantitative phase, discussing, and explaining them in detail. Finally, it will conclude the chapter by summarising the key findings.

## **4.2 Response rate**

A high response rate of  $n=175$  was obtained, surpassing the initial expectations that were anticipated from the power analysis (see Methodology Chapter 3). Several factors likely contributed to this higher-than-anticipated response rate. Firstly, the researcher conducted extensive publicity efforts within European countries, ensuring broad visibility of the research. To promote the survey, the researcher utilised various channels. Initially, the Presidents of the European chapters of the International Nurses Society of Addiction (Netherlands, Portugal, UK, and Ireland) were approached. Additionally, other associations and organisations in Europe, such as the Drugs Research Network Scotland (DRNS), Danish Nurses Organisation, Irish Prison Services (Príosún Lár Na Tíre, Midlands Prison), Irish Psychiatric Nurses' Association, CADS (Community Alcohol and Drug Service), and the Private Addiction Clinic of Castle Craig in Scotland, were contacted. Secondly, the general frustration experienced by European nurses, exacerbated by the COVID-19 pandemic, may have motivated them to participate in the study as a means of seeking change. Lastly, nurses working with individuals dealing with addiction issues constitute a small but highly dedicated group, likely contributing to their enthusiastic response.

Out of the total responses, 15 were excluded as they had completed less than 5% of the survey. These participants only provided consent on the first page of the survey and did not proceed further, rendering their responses null. After removing these participants, a missing data check was conducted, resulting in a final sample size of 160 participants. Among these 160 nurses,  $n=143$  completed more than 70% of the questionnaire. It is important to note that missing data were taken into consideration in this study and this decision was convincingly supported by the results of Little's MCAR test and the application of EM (Expectation-Maximisation) means imputation (full rationale provided in Appendix 9).

### 4.3 Demographic profile of participants

This section provides descriptive statistics on the socioeconomic characteristics of the participants, including age, gender, the country they currently work in, nursing position, education, length of time in their current place of employment, and years of experience in the field of addiction (see Table 4.1).

Table 4.1. *Socio-demographic characteristics of nurses who work with people in addiction, Europe 2021 (N=160)*

<b>Characteristics Category</b>	<b>Respondents</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b>Age</b>	18-35	42	26.9
	36-55	90	57.7
	56-65+	24	15.4
<b>Gender</b>	Female	114	73.1
	Male	42	26.9
<b>Educational status</b>	Diploma or Degree	107	69.0
	Master/PhD	48	31.0
<b>Years of experience in addiction field</b>	Under 12 months	23	14.8
	1 to 7 years	48	31.0
	Over 7 years	84	54.2
<b>Years in current place of employment</b>	Under 1 year to 3 years	46	29.7
	3 to 7 years	36	23.2
	Over 7 years	73	47.1
<b>Current position</b>	Staff Nurse and Midwife	67	42.9
	Administration (CNM or Assistant/Director)	19	12.2
	Clinical or Advance Nurse Specialist	51	32.7
	Academic or other	19	12.2
<b>Country</b>	Ireland	109	69.9
	UK	4	2.6
	Portugal	17	10.9
	The Netherlands	14	9.0
	Other	12	7.7

#### **4.3.1 Analysis of Demographic profile**

The data presented in the table reveals a gender imbalance, consistent with the global nursing profession where the majority of nurses are female (Buchan and Catton, 2020). However, this research suggests that the addiction field may have a higher proportion of male nurses compared to other fields, with approximately three out of ten nurses being male (n=42, 26.9%).

The age distribution of the participants indicates variation within the sample. The majority of participants fell within the mid-range age brackets of 36-45 and 46-55 years, accounting for 28.2% (n=44) and 29.5% (n=46) of the overall sample, respectively. These two brackets combined represent a total of 57.7% (n=90) of the participants. Only one participant (0.6%) belonged to the 65+ age bracket, leading to the collapsing of data into three age ranges: 18 to 35, 36 to 55, and 56 to 65+. A noteworthy observation is the high number of participants who have completed a master's degree (n=43, 27.7%). It is important to highlight that although nurses working in the field of addiction do not require specialisation, a significant proportion of the participating nurses have pursued advanced degrees (master's and/or PhD).

The diversity of work positions reported by the participants highlights the multifaceted nature of nursing roles within the addiction field. Among the surveyed nurses, a considerable proportion (n=38, 23.8%) identified themselves as clinical nurse specialists, possibly due to their higher level of education. Furthermore, specific details regarding work positions were provided by sixteen nurses. These positions encompassed a wide range of responsibilities, such as addiction nursing, prison nursing officers, professional development in addiction treatment for health professionals in Denmark, directing an outpatient clinic for mental health and addictions, student nursing, practice nursing, medical social work, head nursing with qualifications in RN, MHPN, MSc, and PhD, coordinating substance misuse services with clinical responsibility, community mental health nursing, clinical nurse management, and clinical skills facilitation. These varied positions underscore the diverse roles and responsibilities that nurses undertake within the addiction field.

#### 4.4 First objective: Prevalence of VT and Associated Risk and Protective Factors

The first objective was to quantify (a) the prevalence of VT and (b) associated risk and protective factors of vicarious trauma among nurses who work in addiction services. To provide a systematic analysis of this objective, this research present both the prevalence of VT and an examination of risk and protective factors.

##### (a) Prevalence of VT

The prevalence of VT was assessed using the Vicarious Trauma Scale (VTS) (Vrklevski and Franklin, 2008) during the questionnaire survey. The VTS consists of eight items, and participants responded on a scale ranging from 'strongly disagree' to 'strongly agree.' The study received 147 valid responses with 13 missing data points. Outliers in the data were identified and included in the analysis (see Appendix 9).

To calculate the total VT score, the responses to the eight items were summed. Higher scores indicate a greater exposure to vicarious trauma. The study categorised scores into three levels: 8 to 28 for low VT, 29 to 42 for moderate VT, and 43 to 56 for high VT.

The mean total score of the VTS was found to be 38, suggesting a moderate (toward high) risk of vicarious trauma among the participating nurses in the questionnaire survey (n=147) (see Table 4.3). These findings highlight the significant presence of VT risk among nurses working in addiction services.

Table 4.2. Descriptive statistic of Vicarious Trauma Scale mean

			Statistic	Std. Error
Total Vicarious Trauma Score	Mean		37.9592	.70264
	95% Confidence Interval for Mean	Lower Bound	36.5705	
		Upper Bound	39.3478	
	Median		38.0000	
Std. Deviation			8.51902	

Minimum	12.00	
Maximum	56.00	
Range	44.00	

The mean VTS total score was found to be statistically significantly higher ( $M = 37.9$ ,  $SD = 8.5$ ; 95% CI [36.57 to 39.34]) than the suggested "low" (8 to 28) VT score ( $t(146) = 28.2$ ,  $p = .001$ ).

Considering that a low VT score level ( $<28$ ) is deemed acceptable as it indicates exposure to trauma without dangerous distress, participants were divided into two groups: one with a low, acceptable VT score and another with a moderate to high (29 to 56) distressing score. This categorisation further highlights the high prevalence of VT among nurses working in addiction services, with **88.43%** (95% CI [82.26 to 92.65]) falling into the moderate to high VT score category.

The table below presents the results of the VTS. Response options included "Strongly disagree," "Disagree," "Slightly disagree," "Neither agree nor disagree," "Slightly agree," "Agree," and "Strongly agree." For readability, responses in the "disagree" category (1, 2, and 3) have been merged into a single category called "disagree." Similarly, responses in the "agree" category (5, 6, and 7) have been merged into a category called "agree." The remaining option, "4. Neither agree nor disagree," is considered neutral and remains unchanged.

The analysis of the eight items of the VTS scale provides insights into the experiences of nurses regarding vicarious trauma. Table 4.3 exposes the findings for each item.

Table 4.3. VTS Frequencies %(N) – Highest Percentage Highlighted in bold.

VTS Questions	Disagreement % (N)	Neutral % (N)	Agreement % (N)	Total Participants
Feeling exposed to distressing material and experiences	7.5 (11)	3.4 (5)	<b>89.1 (131)</b>	147
Feeling exposed to traumatized or distressed clients	6.2 (9)	0.7 (1)	<b>93.2 (136)</b>	146
Feeling distressed by clients' stories and situations	21.1 (31)	14.3 (21)	<b>64.6 (95)</b>	147
Difficulty dealing with the content of work	<b>55.5 (81)</b>	12.3 (18)	31.2 (47)	146
Thinking about distressing material at home	42.9 (63)	13.6 (20)	43.5 (64)	147
Feeling helpless to assist clients as desired	18.4 (27)	7.5 (11)	<b>74.1 (109)</b>	147
Feeling overwhelmed by workload	18.4 (27)	10.2 (15)	<b>71.4 (105)</b>	147
Difficulty staying positive and optimistic	37.4 (55)	8.2 (12)	<b>54.4 (80)</b>	147

Interestingly, in the first item, a majority of nurses (89.2%, N=131) agreed, indicating high exposure to distressing material. Conversely, in the fourth item, most participants (55.5%, N=81) disagreed, suggesting that handling the content of their work was not challenging. Among the eight sentences assessed using the VTS, this particular item stands out as the sole instance that received a "disagreement" rating. Thinking about distressing material at home is the only statement that received approximately equal percentages of both "agree" and "disagree" responses (see Appendix 10 for more detailed table)

(b) Associated risk and protective factors

Objective one, which aims to quantify the associated risk and protective factors of vicarious trauma among nurses in addiction services, was divided into two separate paragraphs. The first paragraph (b1) focuses on the analysis of associated risks, while the second paragraph (b2) examines protective factors as potential coping mechanisms to safeguard nurses from developing VT.

(b1) Analysis of risk factors

The risk factors were analysed by considering the vicarious trauma total score in conjunction with the participants' demographic profiles. The literature review highlighted various personal aspects of healthcare professionals that could increase the risk of developing vicarious trauma. These factors were addressed within the questionnaire survey.

Table 4.4 - *Prevalence and odds ratios of experiencing Vicarious Trauma within the socio-demographic characteristics among nurses who work with people in addiction in Europe, 2021(N=160).*

Variable	Prevalence of VT			Exp.	COR (95%CI)	Sig.	
	Low VT	Mod/High VT	Tot.				
	N (%)	N (%)	N				
Age of the respondent	18-35	1 (2.6)	38 (97.4)	39	1	1	.189
	36-55	12(14.3)	72 (85.7)	84	7.60	(.795-72.628)	.078
	56-65+	4 (16.7)	20 (83.3)	24	1.20	(.349-4.127)	.772
Gender	Male	4 (9.7)	37 (90.2)	41	1	1	
	Female	13 (12.3)	93 (87.7)	106	1.29	(.396-4.223)	.670
Nursing Education	Diploma or Degree	10 (9.9)	91 (90.1)	101	1	1	
	Master/ PhD	7(15.5)	38(84.4)	45	.597	(.211-1.683)	.329
Occupation	Staff Nurse and Midwife	5 (7.7)	60 (92.3)	65	1	1	.063
	<b>Administration (CNM or Assistant/Director)</b>	<b>1 (5.5)</b>	<b>17 (94.4)</b>	<b>18</b>	<b>6.00</b>	<b>(1.467-24.547)</b>	<b>.013*</b>
	Clinical or Advance Nurse Specialist	6 (12.2)	43 (87.7)	49	8.500	(.865-83.493)	.066
	Academic or other	5 (33.3)	10 (66.6)	15	3.583	(.909-14.128)	.068
Years of experience	Under 12 months	3 (14.3)	18 (85.7)	21	1	1	.442

Variable	Prevalence of VT			Exp.	COR (95%CI)	Sig.	
	Low VT	Mod/High VT	Tot.				
	N (%)	N (%)	N				
in addiction field	1 to 7 years	3 (6.5)	43(93.5)	46	.971	(.245- 3.851)	.966
	Over 7 years	11 (13.9)	68 (86.1)	79	2.319	(.612- 8.789)	.216
Years in current place of employe nt	Under 1 year to 3 years	3 (6.6)	42 (93.3)	45	1	1	.426
	3 to 7 years	4 (11.8)	30 (88.2)	34	2.456	(.636- 9.478)	.192
	Over 7 years	10 (14.9)	57 (85.1)	67	1.316	(.380- 4.551)	.665
Country	Ireland	10 (9.6)	94 (90.4)	104	1	1	.092
	UK	0 (0)	4 (100)	4	.940	(.109- 8.123)	.955
	<b>The Netherla nds</b>	<b>5 (38.5)</b>	<b>8 (61.5)</b>	<b>13</b>	<b>6.354</b>	<b>1.793- 22.512</b>	<b>.004*</b>
	Portugal	1(6.6)	14(93.3)	15	.160	(.015- 1.660)	.125
	Other	1(9.1)	10 (90.1)	11	1.400	(.078- 25.144)	.819

Note:  
VT,

*Vicarious trauma*; COR, *Crude Odds Ratio*; CI *Confidence Interval*; Exp., Odds ratio; Sig. (significance level) P-Value. \* P ≤ 0.05

The table explores individual risk factors and their correlation with VT scores. Gender and age showed no significant correlation with VT. Years of experience and length of employment had no statistically significant association with VT. The “country” variable revealed a significant association between the prevalence of Vicarious Trauma and the geographic location, particularly in The Netherlands. One notable finding emerges in the "Occupation" category, where individuals in administrative roles, specifically Clinical Nurse Managers (CNM) or Assistant/Directors, exhibit a higher likelihood of experiencing VT compared to their counterparts in Staff Nurse and Midwife positions. This association is statistically significant (p .013), suggesting a meaningful link between administrative responsibilities and a higher prevalence of Vicarious Trauma. Additionally, while other occupational categories such as Clinical or Advance Nurse Specialists and those in Academic or other roles show trends toward increased Vicarious Trauma prevalence,

these associations do not reach statistical significance. Table 4.5 provides an overview of individual risk factors, literature findings, study findings, and their statistical correlations with the VTS score. The table explores various aspects related to individual characteristics and their association with VT.

*Table 4.5- Individual risk factors, literature findings, study findings and statistical correlation with VTS score.*

<b>Individual Aspects</b>	<b>Literature Findings</b>	<b>Study Findings</b>	<b>Statistical Correlation with VT</b>
<b>Gender</b>	Conflicting outcomes, some studies indicate females more vulnerable, others suggest males may have higher VT scores.	Males= slightly higher prevalence of moderate/high VT scores (90.2%) Females= (87.7%).	There is no statistically significant difference in VT prevalence between male and female respondents, as indicated by a p-value of 0.670.
<b>Age</b>	Younger professionals more vulnerable, older age associated with lower emotional exhaustion	<36 years old = higher risk of moderate/ high levels of VT (97.4%)	No statistically significant association with Vicarious Trauma was found across different age groups (18-35, 36-55, 56-65+), with p-values ranging from 0.189 to 0.772.
<b>Years of Experience</b>	Mixed findings, some studies suggest prolonged exposure increases VT, others suggest limited experience leads to higher VT	<12 months of experience lower prevalence VT (85.7% moderate to high VT) compared to those with 1 to 7 years of experience (93.5% moderate to high VT). lower VT for <1 year (85.7%) or >7 years	The years of experience in the addiction field do not exhibit a statistically significant correlation with VT, with p-values ranging from 0.216 to 0.966.
<b>Years in the current place of employment</b>	The longer professionals work in a particular place of employment, the more vulnerable they become to developing VT. The cumulative effect of VT gradually increases over time	Less than 12 months of working in the same treatment centre = higher prevalence (94.1% moderate to high VT), while those working more than 7 years had a lower prevalence (85.1% moderate to high VT).	The duration of employment also does not show a significant association with VT, as evidenced by p-values ranging from 0.426 to 0.665.

<b>Individual Aspects</b>	<b>Literature Findings</b>	<b>Study Findings</b>	<b>Statistical Correlation with VT</b>
<b>Countries and VT</b>	No conclusive studies on variations in VT prevalence across different countries	The Netherlands= lowest score (61% moderate/high risk of VT)	Respondents from The Netherlands had a significantly lower risk of VT (p = 0.004), while no significant associations were observed for other countries (Ireland, UK, Portugal, Other). (See appendix 12)
<b>Education</b>	Higher education associated with lower VT scores	Higher education= lower VT	The level of nursing education (Diploma or Degree vs. Master/PhD) does not show a significant association with VT, with a p-value of 0.329.
<b>Occupation</b>	Higher Education=lower VT	Clinical Nurse Managers, Assistant Directors of Nursing or Directors of Nursing= Higher VT	Administrative roles, specifically Clinical Nurse Managers (CNM) or Assistant/Directors, are significantly associated with a higher VT risk (p = 0.013).

### (b2) Analysis of the protective factors

A requirement of the first objective was to quantify the protective factors of VT among nurses who work in addiction services. Coping mechanisms are indicated as protective factors in this research.

Following the demographic profile of participants and the Vicarious Trauma Scale, the survey presented to the participants some coping mechanisms from which to choose, which the literature reviewed highlighted as being the most effective ones against vicarious trauma, compassion fatigue, and burn out. This section helped to measure the protective factors of vicarious trauma among nurses who work in addiction services.

Those coping mechanisms to choose from were mindfulness, self-care, supervision, peer support, healthy lifestyle, detachment, boundaries, education and social support. Those nine activities have been selected as they were identified through the literature review. There were three possible answers: *never, occasionally, and often*.

Coping mechanism “healthy lifestyle” answers were collapsed into *never/occasionally* and *always*, as “Never” received too low response.

Table 4.6- Prevalence and odds ratios of experiencing Vicarious Trauma within the protective factors among nurses who work with people in addiction in Europe, 2021(N=160).

Variable		Prevalence of VT			Exp.	COR (95%CI)	Sig.
		Low VT	Mod/High VT	Tot			
		N (%)	N (%)	N			
Mindfulness /Meditation	Never	6(12.2)	43(87.8)	49	1	1	.547
	Occasionally	5(7.1)	65(92.9)	70	1.132	(.256- 5.008)	.871
	Often	3(13.6)	19(86.4)	22	2.053	(.449- 9.384)	.354
Self-care	Never	2 (16.7)	10 (83.3)	12	1	1	.683
	Occasionally	5 (8.3)	55 (91.7)	60	.547	(.099- 3.014)	.488
	Often	7 (9.9)	64 (90.1)	71	1.203	(.361- 4.006)	.763
Supervision	Never	6 (10.3)	52 (89.6)	58	1	1	.834
	Occasionally	6 (10.9)	49 (89.1)	55	.642	(.121- 3.398)	.602
	Often	2 (6.9)	27 (93.1)	29	.605	(.114- 3.207)	.555
Peer support	Never	4 (13.8)	16 (55.2)	29	1	1	.303
	Occasionally	5(11.1)	40 (88.9)	45	.338	(.085- 1.339)	.123
	Often	6 (7.8)	71 (92.2)	77	.676	(.194- 2.356)	.539
Healthy lifestyle	Never/occasi onally	3 (5.1)	56 (94.9)	59	1	1	

Variable	Prevalence of VT			Exp.	COR (95%CI)	Sig.	
	Low VT	Mod/High VT	Tot				
	N (%)	N (%)	N				
	Often	11(12.9)	74 (87.1)	85	2.477	(.658- 9.331)	.180
Detachment	Never	5 (12.2)	36 (87.8)	41	1	1	.764
	Occasionally	7 (9.6)	66 (90.4)	73	.533	(.096- 2.961)	.472
	Often	2 (6.9)	27 (93.1)	29	.698	(.136- 3.579)	.667
Boundaries	Never	4 (26.7)	11 (73.3)	15	1	1	.072
	Occasionally	3 (5.4)	53 (94.6)	56	.296	(.074- 1.183)	.085
	Often	7 (9.7)	65 (90.3)	72	1.903	(.469- 7.718)	.368
Social support	Never	3 (23.1)	10 (76.9)	13	1	1	.252
	Occasionally	2 (5.9)	32 (94.1)	34	.379	(.089- 1.609)	.188
	Often	10 (10.2)	88 (89.8)	98	1.818	(.378- 8.750)	.456
Education	Never	1 (7.7)	12 (92.3)	13	1	1	.866
	Occasionally	5 (9.4)	48 (90.6)	53	1.588	(.184- 13.706 )	.674
	Often	9 (11.7)	68 (88.3)	77	1.271	(.401- 4.029)	.684

As shown in the table above, there were no significant statistical correlation between coping mechanisms and risk of VT as the values are more than p .05.

However, it can be noticed that there was lower proportion of VT when nurses reported using selfcare, healthy lifestyle, peer support, education and social support “often”. There was also an option to include other personal coping mechanisms not cited in the survey, and 36 participants left a note with some other way to protect themselves from the distress experienced at work. Those coping mechanisms were grouped into ten categories (personal hobbies, education, alcohol, self-care, own analysis, therapy, peer support, sport/exercises, family and friends, Tv/ leisure) (Appendix 13).

The research highlighted the need for more studies on coping mechanisms specific to nursing practice and acknowledged the impact of the COVID-19 pandemic on nurses' ability to engage in coping mechanisms.

#### **4.5 Second Objective: Relationship Between Leadership and VT**

The second objective of this research aimed to examine the relationship between leadership and the occurrence of vicarious trauma. The analysis of the scale used in this study revealed a significant gap in organisational levels concerning the recognition and management of VT. Consequently, a higher prevalence of moderate to high VT scores was observed among nurses working in organisations with weak leadership in addressing VT. The findings of this study indicate that as the effectiveness of organisational leadership in addressing vicarious trauma decreased, the levels of vicarious trauma experienced by European nurses participating in this research increased.

The literature review emphasised the critical role of leadership in creating a supportive and well-organised work environment that mitigates the development of vicarious trauma (Pearlman, 1999; Cummings, 2004; Sommer, 2008; McKenna & Jeske, 2020). Effective leadership has also been associated with improved patient satisfaction, healthcare outcomes (Shirey, 2009; Sfantou *et al.*, 2017; de Vries & Curtis, 2019), and a reduction in adverse events such as medication errors (Wong *et al.*, 2013). However, as previously mentioned, the data analysis revealed a significant gap in the organisational leadership of the participants regarding its focus on vicarious trauma and staff well-being.

The "Vicarious Trauma-Organisational Readiness Guide" (VT-ORG) scale (2013) was utilised in combination with the vicarious trauma scale (VTS) total scores to determine these findings. The VT-ORG scale consists of 62 questions, rated on a Likert scale of 1 (Never) to 5 (Always), divided into five evidence-informed areas of organisational health (see Appendix 8). According to the VT-ORG, organisations should proactively recognise and address the needs of their staff in these five areas: Leadership and Mission, Management and Supervision, Employee Empowerment and Work Environment, Training and Professional Development, and Staff Health and Wellness.

Mean scores were calculated for each of the five areas of organisational health. According to the VT-ORG, scores ranging from 3.5 to 5 indicate occurrences of "sometimes," "often," or "always" and suggest strengths within the organisation. Scores lower than 2.5 indicate occurrences of "rarely" or "never" and suggest gaps and weaknesses in the organisation's approach. Consequently, areas with scores below 3.5 were considered by participants as unprepared and ineffective in addressing vicarious trauma.

In summary, this research demonstrates that weak organisational leadership in addressing vicarious trauma is associated with higher levels of vicarious trauma among European nurses. The study employed the VT-ORG scale in conjunction with the VTS total score to assess organisational readiness and the occurrence of vicarious trauma. The findings highlight the importance of effective leadership in creating a supportive work environment that addresses the needs of staff and mitigates the risk of vicarious trauma. The table 4.7 below highlights the means and standard deviation of each area.

Table 4.7. VT ORG five areas means and standard deviation.

AREA	N	MEAN	SD
<b>Leadership and Mission</b>	136	3.3022	.87741
<b>Management and Supervision</b>	126	2.5743	.70468
<b>Employee Empowerment and Work Environment</b>	115	3.1184	.79216
<b>Training and Professional Development</b>	112	3.2722	.68559
<b>Staff Health and Wellness</b>	110	2.6244	.74163

None of the five areas scored higher than 3.3, indicating that nurses working in addiction services were dissatisfied with the organisational leadership and that there was a significant gap in addressing vicarious trauma within these organisations. In this study, the scores of the five areas were categorised into two groups: 1) weakness in organisational leadership to address vicarious trauma (scores below 3.5) and 2) strength in organisational leadership to address vicarious trauma (scores above 3.5). Binary regression and crosstab analyses were conducted to examine the association between leadership and the occurrence of vicarious trauma. In the table below (4.8) the “Weak Leadership” stands for “Weak leadership in addressing VT” and “Strong Leadership” stands for “Strong leadership in addressing VT”.

Table 4.8- Association between leadership and the occurrence of vicarious trauma.

VT ORG		Prevalence of VT			Exp.	COR (95%CI)	Sig.
		Low VT	Mod/High VT	Tot.			
Areas		N (%)	N (%)	N			
Area one: Leadership and Mission	Weak leadership	7 (53.8)	6 (46.2)	13	1	1	
	Strong leadership	68 (55.3)	55 (44.7)	123	1.060	(.337-3.336)	.921

VT ORG		Prevalence of VT			Exp.	COR (95%CI)	Sig.
		Low VT	Mod/High VT	Tot.			
Areas		N (%)	N (%)	N			
Area two: Management and Supervision	Weak leadership	7 (63.6)	4 (36.4)	11	1	1	
	Strong leadership	107 (93.0)	8 (6.95)	115	7.643	(1.842-31.718)	<b>.005</b>
Area three: Employee Empowerment and Work Environment	Weak leadership	6 (60)	4 (40)	10	1	1	
	Strong leadership	74 (70.5)	31 (29.5)	105	1.591	(.420-6.034)	.494
Area four: Training and Professional Development	Weak leadership	4 (44.4)	5 (55.5)	9	1	1	
	Strong leadership	74 (71.8)	29 (28.1)	103	3.190	(.800-12.718)	.100
Area five: Staff Health and Wellness	Weak leadership	5 (55.5)	4 (44.4)	9	1	1	
	Strong leadership	76 (75.2)	26 (25.7)	101	2.432	(.606-9.767)	.210

The next sections provide a more detailed analysis for each of the five areas. In the following Tables, negative correlation coefficients indicate that as the score on the vicarious trauma scale increases, the scores on the questions related to the organisational leadership scale decrease. This suggests that there is an inverse relationship between the level of vicarious trauma experienced by individuals and their perceptions of leadership and organisational mission. In other words, higher levels of vicarious trauma are associated with lower perceptions of leadership effectiveness, communication, and support for organisational values and mission, etc. This negative correlation implies that addressing vicarious trauma within the organisation may be essential for enhancing perceptions of leadership and organisational effectiveness among staff members.

#### A. Leadership and Mission

The average score for this area was 3.3, indicating weakness in addressing vicarious trauma. To effectively address the impact of VT, organisational leadership should

proactively incorporate strategies to mitigate VT within the workplace and maintain a clear vision that aligns with the organisation's mission. Additionally, promoting open and respectful communication is essential. However, when nurses reported weak leadership and mission in their organisations, 55% of them scored moderate/high levels of vicarious trauma, whereas only 44.7% scored the same levels within organisations that actively addressed vicarious trauma through organisational leadership.

To examine correlations, the VTS total mean score was analysed in relation to the first area of the VT-ORG (see table 4.9).

*Table 4.9- Correlation between VT score and questions of the VT-ORG area one (Leadership and Mission).*

<b>AREA ONE- Leadership and Mission</b>		
1. Leadership demonstrates a clear and decisive vision that supports and articulates the mission of the organisation	Correlation Coefficient	<b>-.173*</b>
	Sig. (2-tailed)	.044
	N	136
2. Leadership models, values, and promotes open and respectful communication among staff	Correlation Coefficient	-.152
	Sig. (2-tailed)	.078
	N	136
3. Leadership communicates clear and specific information on decision- making throughout the organisation (e.g., resource allocation, scheduling, deadlines, implementation of policies and procedures).	Correlation Coefficient	<b>-.231**</b>
	Sig. (2-tailed)	.007
	N	136
4. Leadership proactively addresses vicarious trauma in the organisation's long-term vision and strategy	Correlation Coefficient	<b>-.182*</b>
	Sig. (2-tailed)	.035
	N	135
5. Leadership recognises and values my role within the organisation.	Correlation Coefficient	-.152
	Sig. (2-tailed)	.078
	N	135
6. Leaders model a healthy work/life balance	Correlation Coefficient	-.032
	Sig. (2-tailed)	.715
	N	135
7. Leadership communicates and enforces a no-tolerance policy concerning sexual harassment;	Correlation Coefficient	.012
	Sig. (2-tailed)	.892

**AREA ONE- Leadership and Mission**

	N	135
8. Leadership communicates and enforces a no-tolerance policy concerning workplace violence, including bullying/hazing	Correlation	.082
	Coefficient	
	Sig. (2-tailed)	.344
	N	135
9. Leadership communicates and enforces a no-tolerance policy concerning intimate partner violence within or outside of the workplace	Correlation	.100
	Coefficient	
	Sig. (2-tailed)	.246
	N	135
10. Leadership communicates and enforces a no-tolerance policy concerning discrimination based on age, gender, gender identity, sexual orientation, race, religion, ability, etc.	Correlation	.100
	Coefficient	
	Sig. (2-tailed)	.247
	N	135

*Note: \*Correlation is significant at the 0.05 level (2-tailed); \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 4.9 presents the correlation between the VT score and questions related to the Leadership and Mission area. The table shows the correlation coefficients, significance levels (2-tailed), and sample sizes (N) for each question. The findings indicate that there are significant negative correlations between the VT score and questions related to leadership demonstrating a clear vision, promoting open communication, providing clear decision-making information, and addressing vicarious trauma in the organisation's long-term vision and strategy. However, there are no significant correlations between the VT score and questions regarding leadership modeling work/life balance or enforcing policies on sexual harassment, workplace violence, intimate partner violence, or discrimination.

Overall, the findings indicate that leadership and mission play a crucial role in addressing vicarious trauma within the nursing organisations. The second phase of the research will delve deeper into understanding this area.

## B. Management and Supervision

The second area, management and supervision, received the lowest mean score of 2.5 among the five areas. There is a significant statistical correlation between this area and VTS score. The findings of this first phase indicate a severe lack of supervision within the sample of nurses in this research (see table 4.10)

*Table 4.10- Correlation between VT score and questions of the VT-ORG area two (management and Supervision)*

<b>AREA TWO - Management and Supervision</b>		
1. My organisation uses a protocol to address staff affected by— a. clients' acute trauma;	Correlation Coefficient	-.158
	Sig. (2-tailed)	.084
	N	120
2. b. clients' cumulative/chronic trauma;	Correlation Coefficient	-.049
	Sig. (2-tailed)	.593
	N	121
3. c. organisational/administrative stress;	Correlation Coefficient	-.093
	Sig. (2-tailed)	.306
	N	122
4. d. specific concerning behaviours (e.g., low morale, substance misuse, absenteeism).	Correlation Coefficient	-.104
	Sig. (2-tailed)	.255
	N	121
5. My shift supervisors are readily accessible to support staff members following a critical or acute incident.	Correlation Coefficient	-.158
	Sig. (2-tailed)	.078
	N	125
6. I meet individually with my supervisor.	Correlation Coefficient	-.160
	Sig. (2-tailed)	.077
	N	122
7. Meetings with my supervisor provide a forum for addressing exposure to trauma.	Correlation Coefficient	<b>-.192*</b>
	Sig. (2-tailed)	.038
	N	118
8. My supervisor reviews my job responsibilities and workload balance (e.g., variety of tasks, number of high-risk cases, call volume).	Correlation Coefficient	-.074
	Sig. (2-tailed)	.419
	N	121
9. I am able to discuss concerns about the organisation or my job with my supervisor(s) without fear of negative consequences.	Correlation Coefficient	-.044
	Sig. (2-tailed)	.634
	N	122
10. My supervisor encourages and responds to my ideas and input.	Correlation Coefficient	-.050
	Sig. (2-tailed)	.589

### AREA TWO - Management and Supervision

	N	121
11. Staff meetings are highly valued as a mode of team communication and collaboration.	Correlation Coefficient	-.058
	Sig. (2-tailed)	.526
	N	123
12. Staff meetings are an opportunity to address topics related to vicarious trauma and stress management.	Correlation Coefficient	<b>-.234**</b>
	Sig. (2-tailed)	.009
	N	122
13. My supervisor takes steps to ensure that staff have access to adequate resources to perform their jobs.	Correlation Coefficient	-.134
	Sig. (2-tailed)	.142
	N	122
14. Staff members are provided adequate and equitable salary and benefits.	Correlation Coefficient	<b>-.193*</b>
	Sig. (2-tailed)	.033
	N	123
15. My supervisor ensures policies and/or procedures are in place to address staff grievances.	Correlation Coefficient	-.050
	Sig. (2-tailed)	.586
	N	121
16. My supervisor uses a formal performance evaluation process.	Correlation Coefficient	-.148
	Sig. (2-tailed)	.106
	N	121
17. My performance evaluation includes a discussion of organisational and individual strategies to minimise risk for vicarious traumatisation.	Correlation Coefficient	<b>-.183*</b>
	Sig. (2-tailed)	.045
	N	121
18. My performance evaluation includes a discussion of employee contributions to a positive work environment.	Correlation Coefficient	<b>-.271**</b>
	Sig. (2-tailed)	.003
	N	119

*Note: \*Correlation is significant at the 0.05 level (2-tailed); \*\*Correlation is significant at the 0.01 level (2-tailed).*

Table 4.10 displays the correlation between the Vicarious Trauma score and questions related to the Management and Supervision area. The table includes correlation coefficients, significance levels (2-tailed), and sample sizes (N) for each question. The findings reveal that there are significant negative correlations between the VT score and questions concerning the organisation's protocol for addressing staff affected by acute trauma, the accessibility of shift supervisors following critical incidents, meetings with supervisors as a forum for addressing trauma exposure, staff meetings addressing vicarious trauma and stress management, the adequacy of salary and benefits, and performance evaluations discussing strategies for minimising vicarious traumatisation

and promoting a positive work environment. However, there are no significant correlations between the VT score and questions regarding cumulative/chronic trauma, organisational/administrative stress, specific concerning behaviours, workload balance, fear of negative consequences when discussing concerns, supervisor encouragement and responsiveness, the value of staff meetings for communication and collaboration, resource access, staff grievances, formal performance evaluations, or discussions of employee contributions to a positive work environment.

### C. Employee Empowerment and Work Environment

The third area of the VT-ORG toolkit is Employee Empowerment and Work Environment.

This area focuses on promoting a healthy work environment and empowering employees.

The mean score for this third area was 3.1 (see Table 4.7).

*Table 4.11- Correlation between VT score and questions of the VT-ORG area three (Employee Empowerment and Work Environment).*

<b>AREA THREE - Employee Empowerment and Work Environment</b>		
1. My organisation provides opportunities for all staff members to provide input into the— a. development of programs, practices, and policies;	Correlation Coefficient	-.082
	Sig. (2-tailed)	.385
	N	115
2. b. evaluation of programs, practices, and policies.	Correlation Coefficient	-.095
	Sig. (2-tailed)	.314
	N	115
3. My organisation shows appreciation for employee efforts in meaningful ways (e.g., public recognition, note in personnel file, promotions).	Correlation Coefficient	-.144
	Sig. (2-tailed)	.127
	N	114
4. My organisation evaluates staff satisfaction, including job duties, organisation policies, etc.	Correlation Coefficient	<b>-.205*</b>
	Sig. (2-tailed)	.029
	N	113
5. When needed, my organisation uses a written procedure that provides guidance for quick, effective, and confidential resolution of staff conflict.	Correlation Coefficient	-.053
	Sig. (2-tailed)	.580
	N	112
6. My organisation shows that respect for each person is highly valued.	Correlation Coefficient	-.036
	Sig. (2-tailed)	.706
	N	114
7. Diversity is welcomed, respected, and valued.	Correlation Coefficient	-.087

**AREA THREE - Employee Empowerment and Work Environment**

	Sig. (2-tailed)	.363
	N	111
8. Disparaging comments and other demonstrations of disrespect are not tolerated.	Correlation Coefficient	-.056
	Sig. (2-tailed)	.559
	N	111
9. I experience a genuine sense of positive teamwork in my organisation.	Correlation Coefficient	-.078
	Sig. (2-tailed)	.411
	N	114
10. My Organisation provides formal and informal opportunities for building a sense of community and teamwork among employees.	Correlation Coefficient	-.103
	Sig. (2-tailed)	.277
	N	113
11. When needed, my organisation uses effective methods to address staff who are not able to contribute to a positive atmosphere or act as team players.	Correlation Coefficient	<b>-.186*</b>
	Sig. (2-tailed)	.050
	N	112
12. Staff feel safe coming forward to discuss issues of workplace discrimination based on age, gender, gender identity, sexual orientation, race, religion, ability, etc.	Correlation Coefficient	.008
	Sig. (2-tailed)	.932
	N	109
13. My Organisation encourages use of time off.	Correlation Coefficient	-.179
	Sig. (2-tailed)	.062
	N	110
14. My Organisation provides employees with a private, comfortable, and safe workspace.	Correlation Coefficient	-.153
	Sig. (2-tailed)	.108
	N	112
15. My Organisation provides opportunities for me to diversify my work tasks.	Correlation Coefficient	-.178
	Sig. (2-tailed)	.062
	N	111

Note: \*Correlation is significant at the 0.05 level (2-tailed); \*\*Correlation is significant at the 0.01 level (2-tailed).

The presented table elucidates the correlations between the VT score and diverse facets pertaining to Employee Empowerment and Work Environment within the VT-ORG evaluation. Notably, the analysis revealed a significant negative correlation between staff satisfaction, encompassing job duties and organisational policies, and the VT score. This implies that diminished levels of satisfaction are potentially linked to heightened manifestations of vicarious trauma. The findings from the first phase of this research

confirm that nurses place great importance on peer support as a means to reduce stress. A majority of nurses, 77 out of N=142 (54.2%), identified peer support as their primary coping mechanism. Some participants specifically mentioned the significance of having a supportive staff team that shares struggles and provides mutual support. They also mentioned the value of debriefing with colleagues and emphasised the importance of peer support.

#### D. Training and Professional Development

The fourth area, "Training and Professional Development," obtained an average score of 3.2. The scores in this area indicate that nurses perceive a lack of training and professional development provided by their organisations, as reported in the first phase of the research (see table 4.12).

*Table 4.12- Correlation between VT score and questions of the VT-ORG area four (Training and Professional Development).*

<b>AREA FOUR- Training and Professional Development</b>		
1. My organisation orients new staff members to their job role and tasks.	Correlation Coefficient	-.033
	Sig. (2-tailed)	.731
	N	112
2. My organisation provides training and education to all staff on work-related vicarious trauma and its impact on work performance;	Correlation Coefficient	<b>-.246**</b>
	Sig. (2-tailed)	.010
	N	110
3. My organisation provides training and education to all staff on strategies on how to address work-related stress and vicarious traumatisation.	Correlation Coefficient	<b>-.220*</b>
	Sig. (2-tailed)	.021
	N	111
4. My organisation provides onsite opportunities for training and professional development.	Correlation Coefficient	.000
	Sig. (2-tailed)	1.000
	N	112
5. My organisation supports attendance at outside meetings and trainings.	Correlation Coefficient	-.046
	Sig. (2-tailed)	.629
	N	111
6. I am prepared to cover for co-workers who are absent.	Correlation Coefficient	-.169
	Sig. (2-tailed)	.075
	N	112
7. My organisation informs staff about expectations, opportunities, and steps	Correlation Coefficient	-.010
	Sig. (2-tailed)	.916

**AREA FOUR- Training and Professional Development**

necessary for advancement, including additional training and/or certification requirements.	N	112
8. I am encouraged to network and collaborate with co-workers and other organisations.	Correlation Coefficient	-.026
	Sig. (2-tailed)	.784
	N	110

*Note: \*Correlation is significant at the 0.05 level (2-tailed); \*\*Correlation is significant at the 0.01 level (2-tailed).*

The above table presented correlations between the variable "VT score" and the area related to "Training and Professional Development". The average score for this area was 3.2, which suggested that nurses generally perceived a lack of training and professional development opportunities provided by their organisations. Questions 2 and 3 had significant negative correlations at the 0.01 and 0.05 levels, suggesting that nurses' VT scores were inversely related to the presence of training and education related to vicarious trauma and strategies for dealing with work-related stress. The other questions did not show significant correlations. Overall, this table provided insights into the relationship between nurses' perceptions of professional development and their vicarious trauma scores.

**E. Staff Health and Wellness**

The fifth and final area, "Staff Health and Wellness," obtained an average score of 2.6. According to the VT-ORG, organisations should recognise the link between health and wellness, staff satisfaction, and productivity. They should allocate time and resources to promote staff well-being, encourage and provide health and wellness activities, and incorporate wellness into their policies and practices.

The findings in this area highlighted a significant deficiency in promoting health and wellness within the organisations where the participating nurses were working. This aligns with the analysis of coping mechanisms and protective factors used by the nurses against work-related stress, indicating a lack of support in terms of staff well-being.

Table 4.13- Correlation between VT score and questions of the VT-ORG area five (Staff Health and Wellness).

**AREA FIVE - Staff Health and Wellness**

1. During the hiring and orientation of new staff, supervisors demonstrate their understanding of the risk for vicarious trauma and the importance of both individual and organisational strategies to address it by- a. asking	Correlation Coefficient	-.144
	Sig. (2-tailed)	.134
	N	110
2. b. making final applicants aware of the organisation's strategies to reduce the negative impact of the work.	Correlation Coefficient	-.097
	Sig. (2-tailed)	.314
	N	110
3. My organisation offers services that support individual staff members (e.g., employee assistance program, chaplain services, mental health providers).	Correlation Coefficient	-.044
	Sig. (2-tailed)	.648
	N	109
4. My organisation provides opportunities for peers to support one another.	Correlation Coefficient	-.084
	Sig. (2-tailed)	.382
	N	110
5. My organisation conducts exit interviews that include questions related to vicarious trauma and the Organisation's response.	Correlation Coefficient	.011
	Sig. (2-tailed)	.907
	N	110
6. Differentiation between work and non-work hours is recognised and respected.	Correlation Coefficient	.000
	Sig. (2-tailed)	1.000
	N	110
7. My organisation's policies—a. support mental health and wellness;	Correlation Coefficient	.029
	Sig. (2-tailed)	.760
	N	110
8. b. support physical health and wellness.	Correlation Coefficient	-.077
	Sig. (2-tailed)	.422
	N	110
9. My organisation provides wellness activities (e.g., fitness program, mindfulness/meditation, yoga, gym access).	Correlation Coefficient	-.027
	Sig. (2-tailed)	.776
	N	110
10. My organisation encourages wellness activities (e.g., fitness program, mindfulness/meditation, yoga, gym access).	Correlation Coefficient	-.045
	Sig. (2-tailed)	.643
	N	109
	Correlation Coefficient	-.154
	Sig. (2-tailed)	.110

#### AREA FIVE - Staff Health and Wellness

11. My organisation sponsors debriefing and/or support sessions after major traumatic events.	N	108
12. My organisation's policies and/or practices support family members of employees.	Correlation Coefficient	<b>-.190*</b>
	Sig. (2-tailed)	.048
	N	109

*Note: \*Correlation is significant at the 0.05 level (2-tailed). \*\*Correlation is significant at the 0.01 level (2-tailed).*

There was a significant correlation with the VT scores among the European nurses and the organisation's policies and/or practices supporting family members of employees. As highlighted in previous paragraphs, health and wellness are an essential defence mechanism against work related stress, and organisations should recognise that they can improve nurses' health by providing access to wellness activities. This can consequently decrease the vulnerability of the nurses to experience vicarious traumatisation.

#### 4.6 Summary and Conclusions

This chapter outlined the process of quantitative data analysis and how it led to the study findings. The data offers a very good insight into the gaps in the literature and what kind of improvement can be made to assure nurses the best environment to deliver the appropriate nursing care to vulnerable patients. Logistic regression models were run between VTS and the demographic profile of the participants. The analysis was run with a CI of 95% and of 90%, however, the variability among groups was not statistically significant. This could potentially be due to three main factors: (1) the prevalence of vicarious trauma was too high, which makes it difficult to detect variability. Therefore, those correlations could potentially change if the participants scored low VT. Otherwise, (2) perhaps a larger sample is needed to detect significant correlations. (3) the Vicarious Trauma Scale might be a very sensitive tool. This chapter presents the key findings of the first quantitative phase of the study. The findings are as follows:

1. Prevalence of Vicarious Trauma: The research revealed that a moderate to high prevalence of vicarious trauma exists among 88.43% (95% CI [82.26 to 92.65]) of European nurses working in addiction services. This indicates that a significant proportion of nurses in this field are affected by the emotional impact of their work.
  
2. Associated Risk Factors: The results align with the risk factors identified in the literature review. Several factors were found to be associated with vicarious trauma:
  - Age: Younger nurses (<36 years old) were found to have a higher risk of experiencing vicarious trauma, with 97.4% reporting moderate to high levels. However, this association is not statistically significant.
  - Length of Employment: Nurses who had been working in the same place for a longer duration had lower vicarious trauma scores. Those with less than 12 months of experience had a higher prevalence (94.1% moderate to high VT), while those with more than 7 years had a lower prevalence (85.1% moderate to high VT). However, this association is not statistically significant.
  - Education: The findings support the literature's indication that higher education is associated with lower vicarious trauma scores. This finding indicates that individuals with a Master/PhD in nursing are less likely to experience Vicarious Trauma compared to those with a Diploma or Degree. However, this association is not statistically significant ( $p = 0.329$ ).

Contrasting Results: Some of the research's findings on associated risk factors contrasted with the outcomes of other studies:

- Gender: In this study, male nurses had a slightly higher prevalence of moderate to high vicarious trauma scores (90.2%) compared to female nurses (87.7%), however there was no significant correlation.
- Experience: Nurses with less than 12 months of experience in addiction services had a lower prevalence of vicarious trauma (85.7% moderate to high VT) compared to those with 1 to 7 years of experience (93.5% moderate to high VT). However, this association is not statistically significant.
- Higher ranking nurse: experience higher risk of developing VT.

3. Variation among European Countries: Among the European countries analysed, the Netherlands had the lowest percentage of nurses scoring moderate to high vicarious trauma (61.5%). In contrast, the United Kingdom had 100% of participants with moderate to high VT scores, and Ireland had 90.4% of nurses scoring moderate to high VT. This association is statistically significant with a p-value of 0.004.
4. Importance of Education and Organisational Leadership: The majority of participants emphasised the importance of education in coping with work-related stress. However, they also reported feeling inadequately prepared or trained to work in addiction services.
5. Additionally, the research highlighted that nurses experienced higher levels of vicarious trauma when organisational leadership was weak. The study revealed that the organisational leadership of the participating nurses did not proactively address vicarious trauma.
6. The analysis of coping mechanisms among nurses working in addiction areas reveals the following findings:
  - Mindfulness and Establishing Boundaries: While mindfulness and establishing healthy boundaries were recognised as effective coping mechanisms in the literature, their utilisation among surveyed nurses was not widespread. Only 49.6% of participants occasionally used mindfulness, while boundaries were reported as never used by only 10.5% of nurses. The complex and challenging nature of working with individuals struggling with addiction may contribute to the limited effectiveness of detachment as a coping mechanism, with only 20.3% of nurses frequently practicing it.
  - Valuable Coping Mechanisms: Self-care, supervision, peer support, a healthy lifestyle, education, and social support emerged as valuable coping mechanisms for nurses in addiction areas. The majority of nurses frequently engaged in self-care (49.7%) and relied on peer support (54.2%). Continuous education (53.8%) and

personal connections/social support (67.6%) were also frequently utilised coping strategies. However, the associations between those coping mechanisms and risk of VT were not statistically significant.

- **Low Utilisation of Supervision:** Despite the recognised significance of supervision as a coping mechanism, its utilisation among surveyed nurses was relatively low, with only 20.4% reporting frequent use. This was also highlighted within area two of the VT-ORG scale. The scarcity of studies specifically examining coping mechanisms for vicarious trauma among nurses highlights the need for further research in this area.

Nursing practice is unique and encompasses various specialised sectors, making it crucial to identify coping mechanisms tailored to the specific challenges faced by nurses working in addiction areas. It is important to consider the context in which the survey data were collected, which was during the COVID-19 pandemic. The pandemic likely impacted nurses' ability to engage in coping mechanisms due to increased workload and fatigue. Future investigations should explore nurses' individual coping mechanisms in greater depth to understand their unique needs and develop targeted interventions to support their well-being. The study's second objective aimed to explore the relationship between leadership and vicarious trauma among European nurses in addiction services.

Key findings indicate weaknesses in addressing vicarious trauma within the "Leadership and Mission" domain, with a lack of proactive integration of strategies into long-term vision and strategy. The "Management and Supervision" area exposes significant deficiencies in supervision practices, with meetings failing to address trauma exposure and a lack of discussions on vicarious trauma and stress management. Dissatisfaction with salary, benefits, and inequities exacerbates vicarious trauma levels.

The "Employee Empowerment and Work Environment" domain underscores the need for teamwork, collaboration, and staff connection. Peer support is a major coping mechanism, but nurses expressed dissatisfaction within this area and a lack of acknowledgment from their organisations. The "Training and Professional Development" area revealed a severe lack of trauma-related training and education opportunities within

the nursing profession. The "Staff Health and Wellness" domain demonstrated a deficiency in promoting well-being within organisations, compromising nurses' overall well-being and rendering them more vulnerable to vicarious trauma. Overall, the findings underscore the importance of promoting effective coping mechanisms to mitigate work-related distress, reduce vicarious trauma, and enhance the well-being of nurses in addiction areas. Peer support, self-care, education, and social support can better support nurses and contribute to a healthier and more resilient workforce.

In conclusion, the research highlights significant gaps in organisational leadership, supervision practices, employee empowerment, training, and support for staff well-being within European addiction service organisations. Addressing these deficiencies and implementing strategies to improve leadership, supervision, peer support, training, and well-being are crucial steps in reducing vicarious trauma and creating a healthier work environment for nurses. Future research should focus on developing interventions and programmes that target these areas to mitigate the impact of vicarious trauma and improve the overall well-being of nurses in addiction services. In the upcoming chapter, the quantitative data results were explained by delving into in-depth qualitative data. It was anticipated that the insights gained from the experiences of addiction nurses would have shed light on certain aspects of these quantitative findings, providing a more subjective and comprehensive understanding of their significant experiences.



## Chapter Five

### Qualitative Research Findings

#### 5.1 Introduction

As part of an explanatory sequential mixed methods design, this chapter represents the second phase of the research, focusing on the qualitative aspect. Here, this research aims to not only shed light on the findings from the initial quantitative phase, which sought to quantify the prevalence of vicarious trauma and its associated risk and protective factors among nurses working in addiction services but also explore the connection between leadership and VT occurrence within this group. Additionally, it contributes to the fulfilment of objectives 3 and 4 in this research endeavour, which are as follows:

3. to explore nurses' experiences of vicarious trauma and their perceptions of protective factors for vicarious trauma.
4. to determine nurses' views about leadership and its role in minimising vicarious trauma.

The quantitative findings informed the selection of qualitative questions by highlighting specific areas of interest and concern. For example, the high prevalence of VT underscored the importance of understanding nurses' motivations for entering the field of addiction and exploring their coping mechanisms for dealing with job-related stressors. Additionally, the identification of protective factors such as boundaries, self-care, and peer support informed questions aimed at eliciting nurses' perspectives on the effectiveness of these strategies in managing VT. Furthermore, the recognition of risk factors such as variation in VT among different European countries and the impact of organisational leadership on VT levels guided inquiries into nurses' experiences with workplace environments and leadership practices. Overall, the quantitative findings provided a foundation for developing relevant qualitative questions that aimed to deepen

our understanding of nurses' experiences with VT and leadership. Please see Appendix 3.1 for a more detailed table of relevant follow-up questions to the quantitative findings.

This chapter begins by providing an overview of the characteristics of the participants, it then summarises the components of the thematic analysis approach used, and then presents the qualitative findings. The thematic analysis was supported by MAXQDA Analytics Pro 2020. The themes generated from the thematic analysis, were used to clarify some of the findings from the quantitative phase of the study.

## **5.2 Characteristics of Participants Interviewed**

Interviews were conducted between May 30th and September 18th in 2021, involving a total of 15 nurses who participated in virtual interviews conducted via Zoom. Please refer to Table 5.1 for a detailed summary of the characteristics of the interviewed participants. The names of the participants have been pseudonymised for confidentiality purposes. The nurses interviewed consisted of a very balanced group (n=8 males and n=7 females; n=9 general nurses and n=6 mental health nurses; n=8 without postgraduate degree; n=7 with a postgraduate degree; n=7 less than 5 years' experience and n=8 more than 5 years' experience).

Table 5.1. Summary of interview participant characteristics.

Participant (pseudonym)	Gender	Age	Education	Postgrad. degree	Position/role	Years experience in addiction	Country of work
PEDRO	M	18-35	General nurse	-	Inclusion health nurse	4 years	Ireland
TIAGO	M	36-55	Mental health nurse	-	Clinical nurse specialist in alcohol detox and addiction centre	10 years	Portugal
SOPHIE	F	36-55	General nurse	-	Clinical nurse manager 2	20 years	Ireland
JOHN	M	36-55	Registered nurse project 2000 England	-	Nurse Prison Officer	19 years	Ireland
ANNEKE	F	56-65+	General Nurse	PHD	Director of own outpatient clinic for mental health and addictions	20+ years	The Netherlands
FIONN	M	36-55	Mental health nurse	Master in addiction recovery	Clinical nurse specialist in adolescent substance use	15 + years	Ireland
SANTIAGO	M	18-35	General nurse	-	Staff nurse treatment centre	Under 11 months	Portugal
HARRY	M	56-65+	Mental health nurse	Master	Lead nurse in addiction treatment centre	30+ years	Ireland
AOIFE	F	18-35	Mental health nurse	Master in process	Nurse Prison Officer	1 year	Ireland

The online interviews were conducted in a relaxing atmosphere, with participants situated in the comfort of their homes or quiet office spaces. Throughout the interviews, no interruptions were noted, aside from minor instances [such as one participant briefly attending to their cat and another participant politely requesting a caller to call him back]. Despite these brief pauses, all participants appeared comfortable and engaged, whether seated by their phone or computer, contributing to the overall ease and openness of the discussions. The setting for the researcher remained consistent across all 15 interviews, taking place in her home office, ensuring a noise-free and silent environment conducive to focused conversation. A degree of rapport was developed with all participants, and six participants invited the researcher to their respective countries to observe their work in addiction services. The researcher visited one participant's workplace in Copenhagen, Denmark (October 2021) to learn about their remarkable work with patients. The site visit did not impact objectivity in data analysis as it was not relevant to this research, given that the place visited was not the participant's current workplace and was unrelated to vicarious trauma and addiction nursing.

### **5.3 Thematic Analysis of Qualitative Data**

The explicit justification of using thematic analysis was given in the methodology chapter (Chapter 3).

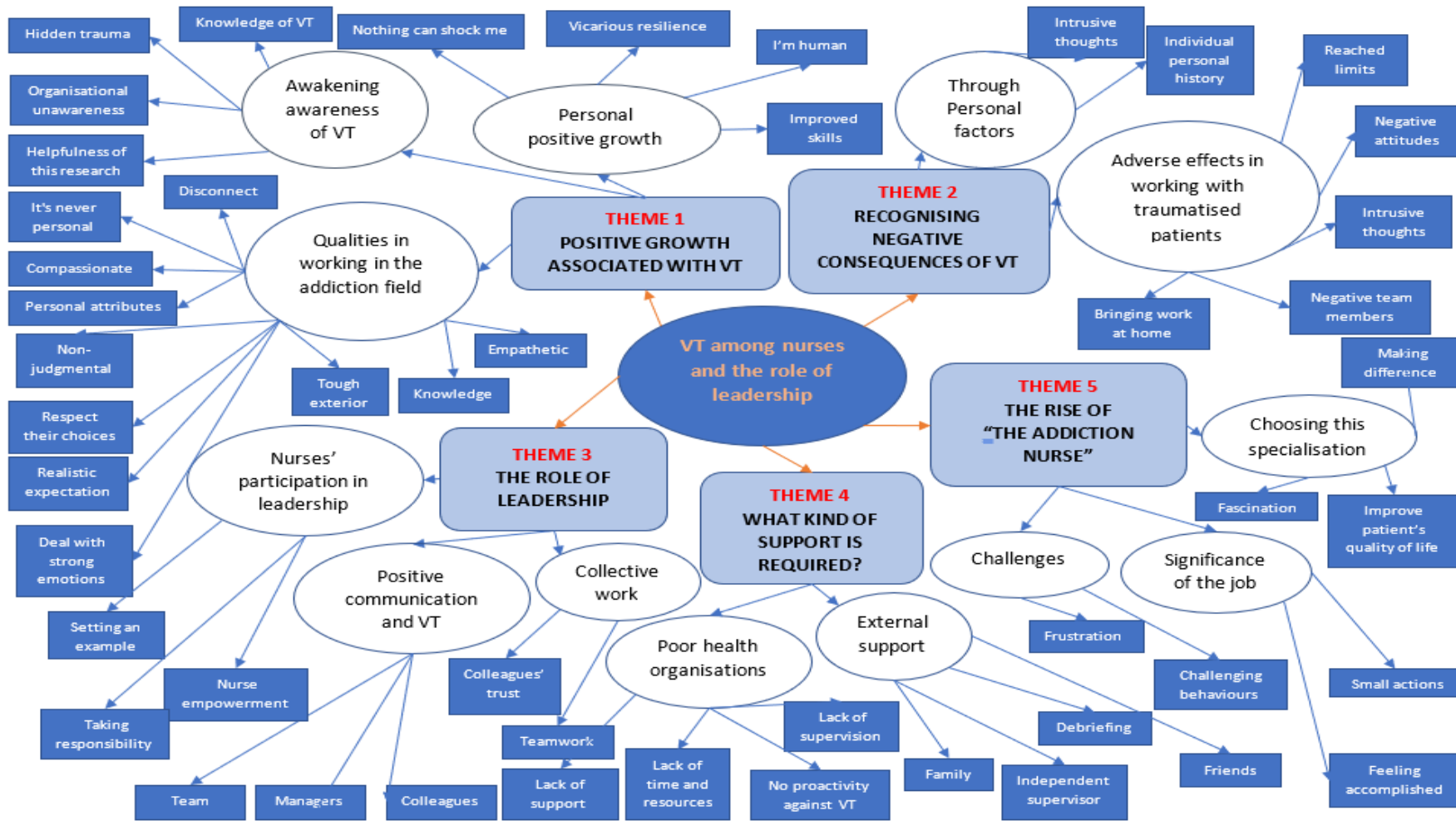
#### **5.3.1 Data management**

All audio data were transcribed verbatim into a word document by the researcher, except for one interview that was transcribed by a supervisor's research assistant. Those verbatim transcriptions were done personally for two main reasons. Firstly, to ensure accuracy, as every word that the participant stated, was transcribed. Every effort was made to use participants' actual words, including any false starts and errors (identified with following [sic] term). Secondly, the transcription process gave the researcher the opportunity to gain a deeper connection with the raw data. The transcription process took a considerable amount of time. The average ratio for transcription is 1:4 (one hour interview could take an average of four hours to transcribe). However, for the researcher

of this study this process took approximately a ratio of 1:6, as English is not the researchers primary language.

The familiarisation of the data happened during the collection of the data, while transcribing the fifteen interviews, while reading them and correcting them, and re-reading them again. The data were then uploaded to MAXQDA Analytics Pro 2020 and steps (2) (3) (4) and (5) of Braun and Clark (2006) Thematic Analysis framework were met (see paragraph 3.6.2 in the methodology chapter for more details). Below Figure 5.1 is a spider diagram illustrating the coding process and the derivation of themes.

Figure 5.1 - Spider Diagram of the Coding Process and Theme Generation.



## 5.4 Findings from Qualitative Thematic Analysis

This section offers an overview of the themes that emerged from the data during the thematic analysis. The themes are supported with extracts from the interview transcripts. These extracts are interviewees' verbatim responses. The major themes and categories are shown in Table 5.2. The chapter concludes with a preliminary discussion of the findings.

Table 5.2- Themes and subthemes

THEMES	THEME 1 POSITIVE GROWTH ASSOCIATED WITH VT  "Where do I store this trauma?"	THEME 2 RECOGNISING NEGATIVE CONSEQUENCES OF VT  "Sink or swim"	THEME 3 THE ROLE OF LEADERSHIP  "Like a lighthouse"	THEME 4 WHAT KIND OF SUPPORT IS REQUIRED?  "I need your help."	THEME 5 THE RISE OF "THE ADDICTION NURSE"  "We try not to fail"
SUBTHEMES	<ul style="list-style-type: none"> <li>• Awakening awareness of VT</li> <li>• Changes and personal positive growth</li> <li>• Qualities needed for working in the addiction field.</li> </ul>	<ul style="list-style-type: none"> <li>• Adverse consequences in working with traumatised patients.</li> <li>• Through personal qualities</li> </ul>	<ul style="list-style-type: none"> <li>• Nurses' participation in leadership</li> <li>• Collective work</li> <li>• Importance of leadership in VT - Positive communication and VT</li> </ul>	<ul style="list-style-type: none"> <li>• Social, organisational and peer support</li> <li>• Poor health organisations</li> </ul>	<ul style="list-style-type: none"> <li>• Choosing this specialisation</li> <li>• Significance of the job</li> <li>• Challenges</li> </ul>

### 5.4.1 THEME 1: Positive growth associated with VT- "Where do I store this trauma?"

Theme one details the findings that relate to the positive growth shown by the nurses who participated in this second qualitative phase. They reported a very high level of resilience and passion for their work. This factor is likely what prompted the nurses to volunteer for the interview, as the majority confided that they were not fundamentally affected by the patients' trauma. However, they are "human" nonetheless, and they share an empathetic relationship with the patients' suffering. This shows that just because some nurses may have had "low" scores for VT in the first phase (N%=10.6%), it doesn't necessarily follow that they are not at risk of experiencing VT.

Participants exhibited several coping techniques when asked about the ongoing exposure to patients' distress, although these coping mechanisms emerged over time and with experience. Fiadh, a primary care nurse manager with ten years of practice, admitted that when she first encountered the traumatic experiences of patients, she was unsure how to respond:

*"(...) And I remember, I just brought him in, to do his vital signs. I hadn't- hadn't even got around to ask him how his day was. And he just disclosed all this [traumatic] information... (...) I think I probably sat in the office for an hour afterwards and not answering the door because I was in such shock. (...) [I was thinking] in my head, like, (...) ... **where do I store this trauma?**" (FIADH, Pos. 115-119)*

Fiadh also shared that in that moment she didn't feel professionally equipped to respond to that disclosure, but eventually, with experience and time, she learned to process information of this kind. This exposure, usually sudden, to patients' trauma is inevitable when working in the addiction field. Therefore, being affected by the suffering of patients is inevitable, as it is part of being human. John explained: *"you're not human if you don't get affected by some things like that."* (JOHN, Pos. 193). Yet, nurses were able to develop resilience-building strategies found within the coping mechanism.

The participating nurses also emphasised the fact that vicarious trauma is not commonly discussed in nursing practice and that understanding VT can have a positive impact on clinical practice. The participants also outlined some potential explanations for their resilience, including some of the changes they underwent while working in addiction services and some of the traits they possessed that they felt were necessary in such a demanding field. Finally, the participants discussed how assistance from their co-workers, friends, and family, as well as from their employing organisation, help them cope with the demands of their jobs.

#### **5.4.1.1 Subtheme: Awakening awareness of VT**

Fourteen out of the 15 nurses interviewed admitted that they were unaware of vicarious trauma until they participated in this study. Because there are so few studies on vicarious

trauma among nurses, especially among those working in the field of addictions, this is consistent with literature reviewed. One participant called vicarious trauma a "*hidden trauma*" because of its secondary nature that often goes unnoticed. Participants unanimously agreed on the significance of the present study, and the importance of making nurses aware of VT.

Sophie, who is a CNM2, expressed: *"just even from doing the survey, I was like, "Oh, my God, we need to start having staff meeting, even... God true - that I was like, "Oh, my God, this is real eye opener." (...), there's so much more that we could be doing and should be doing."* (SOPHIE, Pos. 281)

Fiadh argued that it is illogical for nursing practice to be unaware of VT and highlighted how helpful it would be to be informed about it. *"I didn't know anything about vicarious trauma until I heard about it from... from you and this amazing uhm... study that you're doing, (...) So, the work that we do as nurses, it's insane that we haven't talked about it more."* (FIADH, Pos. 263)

Having participated in the interviews for this study some participants reported that they had informed their organisations about the importance of VT and that this led to changing their treatment practices and educating their staff about vicarious trauma. Santiago, a nurse from Portugal with less than a year of experience in the field of addiction treatment, revealed that he went to the management and informed the company about VT and the negative consequences on the nurses and consequently on the patients. He challenged the organisation stating that a more proactive organisation and stronger teamwork would decrease the risk of VT. He experienced improvements in his workplace as a result.

Further in the interview, Fiadh, who is a nurse manager, said that ever since learning about VT, she has kept it in mind when speaking with the staff nurses under her supervision. She is now working with a new awareness that enables her to reduce the danger of vicarious trauma on her team.

*"I've noticed that since I've heard the term now of vicarious trauma, I feel like... it's just in my head now all the time like and when ... (...) when I see my own team and I meet them for supervision... I actually brought it up with them ... about vicarious trauma. And they actually shared some experiences that they've never told me about ... uhm... and they never brought up in supervision because they assumed it just came with the job. (FIADH, Pos. 291).*

Roisin (a staff nurse with less than 5 years of experience) stated that even her organisation was unaware of VT and that: *"I think maybe with the research that you're doing, it will highlight the need for it."* (ROISIN, Pos. 237) and also: *"I think someone needs to do this... they need to show that this is an issue, and then something will be done about it. So, I think your research will definitely pave the way for that."* (12. ROISIN, Pos. 241).

#### **5.4.1.2 Subtheme: Changes and personal positive growth**

All 15 nurses shared how they might have changed by working with people who have addiction problems. Some of the nurses interviewed shared how they changed the way they believed they could help patients. Pedro, a nurse with 4 years of experience in the addiction field, shared that it was not immediate, but he learned to overcome the need to feel sad about patients' past trauma, and instead, concentrate on the present and what he is able to do to help:

*I'm human, of course, but nothing can shock me. Nothing can shock me in a way that I will- I will- I will come home and still think about that. (...) I wouldn't uhm..., bring that [patient's trauma] home with me, (...) [I would say] "how much (...) I can do to help that person to make hers or his life better." You know? (...) That's what I can do (...) and since when I adopted that, (...) that helped me, you know, to deal with... with that [patients'] trauma (PEDRO, Pos. 120)*

Also, Tiago, a Portuguese clinical nurse specialist in an alcohol detox and addiction centre, with 10 years of experience, expressed that he changed *"in the way I can help them"* (TIAGO, Pos. 361). Sophie, Clinical Nurse Manager 2, with more than 20 years of experience in the addiction field, also mentioned that: *"Probably I've got more use to it..."*

*but I used to (...) be quite upset coming home and worrying about people and words. Now... It's like "no, I can take it" (SOPHIE, Pos. 107)*

John, a Nurse Prison Officer with 19 years of experience, also revealed his initial feelings for some of the trauma the patients were sharing with him, but eventually, with time and experience, he shifted his thinking and changed. *"(...) initially, I was scared, I have to say ... I suppose... after so many years - you get more confident; I don't think about it."* (JOHN, Pos. 217).

Several nurses shared their experiences of working in the field of addiction and how it transformed them. Anneke, a nurse director at an outpatient clinic, mentioned becoming more mature, patient, and humble. Santiago expressed increased happiness since working at an addiction centre, indicating positive personal growth. Harry, an experienced nurse, emphasised the need for greater awareness of addiction, which altered his approach and thinking (HARRY, Pos. 54). These accounts support existing literature that exposure to trauma enhances self-understanding and empathy (Herman, 1995).

However, some nurses admitted that the demanding job desensitised them to trauma, enabling them to cope indirectly. Roisin, a general nurse, and midwife with less than 5 years of experience in the addiction field, stated: *"I suppose... Now, this is going to sound bad... I've become a little bit desensitised. But I think even as a nurse, you have to do that, you have to make yourself a little bit tougher."* (ROISIN, Pos. 123). Patrick, a mental health nurse with less than 5 years of experience, did explain that for him the major change was brought on by the service and nursing practice, which *"brutalised him"* (PATRICK, Pos. 110). On the positive side, Susan mentioned (SUSAN, Pos. 109) increased tolerance due to her understanding of trauma. James, an Irish nurse, learned to protect himself from secondary trauma and function effectively outside of work while still being available for his personal life (JAMES, Pos. 42).

Overall, all the interviewed nurses recognised that their work in addiction had brought about changes in them. These adjustments aimed to better serve patients while also finding ways to safeguard their own well-being.

#### **5.4.1.3 Subtheme: Qualities needed for working in the addiction field.**

The participants interviewed in this study shared their perspectives on the essential qualities required for working in the field of addiction. Some of the identified characteristics align with those described in existing literature as risk factors for developing vicarious trauma, such as empathy (Wilson & Lindy, 1994; MacRitchie & Leibowitz, 2010) and loose boundaries (Maier, 2011; Rice & Warland, 2013). Conversely, other characteristics mentioned by the participants are commonly associated with mental health nurses such as maintaining therapeutic relationships, having an open mind, self-awareness, and patience (Rydon, 2005). However, not all nurses working in the addiction sector necessarily possess these traits. The main qualities highlighted by the participants include non-judgmental and open-minded attitudes, the ability to manage personal coping mechanisms and limitations, maintaining realistic expectations, respecting clients' choices, possessing certain personal attributes, establishing appropriate boundaries, having comprehensive knowledge and relevant experiences, and demonstrating compassion and empathy.

Participants emphasised the importance of being non-judgmental and open-minded when working with people in addiction. According to Sine (Pos. 150), who works with homeless people with addiction problems, *"I try to be open, just show up and meet them... Like I would meet any other people [sic.]... I just... try to meet them, like what [who-sic.] they are as human beings."* Pedro (Pos. 88), a staff nurse with 4 years of experience, mentioned the lack of judgment to gain trust from the patients as a crucial quality: *"When working with addiction (...) you need to ... to be on the same level, otherwise there will be no trust, there will be no bond."*

Participants also highlighted the importance of possessing coping mechanisms and personal limits. Sophie (Pos. 167) mentioned, *"Uhm... before, if somebody maybe started talking about child sexual abuse or something, I would have actually felt that I had to delve into it with them. Whereas now I recognise that I'm not a counsellor."* Santiago (Pos. 382) metaphorically described the need to *"turn off the nurse"* when necessary, which is a perfect metaphor on how essential it is to disconnect when in need.

Maintaining realistic expectations and respecting clients' choices were also emphasised. James mentioned, *"I don't have all the answers... actually drops the level of anxiety hugely."* (Pos. 94). James also pointed out the importance of respecting patients' choices, stating, *"I have to respect their choices, I need to acknowledge that I'm working with adults who are capable of making their own life decisions."* (Pos. 18)

Participants identified personal attributes that align with the qualities required for working in addiction. Roisin (Pos. 163) mentioned being "light-hearted," while Patrick (Pos. 178) described himself as *"easy-going."* Santiago (Pos. 386) mentioned *"creativity,"* and Susan (Pos. 45) highlighted the importance of being *"compassionate"* and *"practical."* Aoife (Pos. 158) emphasised the need to be *"self-aware,"* and empathy was mentioned by many participants.

Establishing appropriate boundaries was seen as one of the major qualities for working with people in addiction. Susan (Pos. 65) mentioned the importance of being able to say no and having good boundaries. Santiago (Pos. 318) also emphasised the need for boundaries to avoid manipulation, stating, *"They don't get to manipulate because every time... I tell them there is that ... boundary that - that is my boundary."* He adds, *"I am your- I am your friend here... but if you try to manipulate me, I will tell you 'Stop'. Because I'm not here for that. And they always get it."* (Pos. 322) Anneke (Pos. 38) mentioned that within the therapeutic relationship, she does open up with the patients, but she also knows where to draw the limits: *"I could open my heart for his sadness... you have to be a good listener also to your own feelings and setting limits to your own feelings or the way the patient is behaving."* She acknowledges, however, that she sometimes has too strict boundaries that could lead to weakness in the therapeutic relationship rather than strength: *"I'm very good in setting limits, sometimes too good. So, I'm going too quickly or too direct. So, I know also what my weak points are."* (Pos. 50)

Having comprehensive knowledge and relevant experiences was seen as valuable. Harry (Pos. 118) mentioned that *"experience and previous knowledge"* help him meet the demands of the job. Susan (Pos. 61) also emphasised the significance of experience, stating, *"You can't buy experience. So, experience is a huge thing."*

Compassion and empathy were recognised as important qualities. Fiadh (Pos. 30) mentioned compassion as an important quality for working in addiction services. Several participants mentioned empathy as essential for working with traumatised patients. Harry (Pos. 38) emphasised the ability to put oneself in the patients' shoes, stating, *"Being able to reflect... live the experience is the key one for me."* Susan (Pos. 57) mentioned that empathy can be challenged more in an addiction service than in other specialties, highlighting the need for tolerance.

Overall, these findings highlight the unique qualities and characteristics that nurses need to possess when working in addiction. The direct quotes from the participants provide insights into their perspectives and experiences, reinforcing the importance of non-judgmental attitudes, coping mechanisms, realistic expectations, respect for clients' choices, personal attributes, boundaries, knowledge, and compassion and empathy in this field. Recognising the negative consequences of vicarious trauma is also emphasised to address and mitigate its potential impact.

#### **5.4.2 THEME 2: Recognising negative consequences of VT - "Sink or swim".**

Theme two details the findings that relate mainly to the risk factors that could potentially increase the risk of developing VT. The literature mentioned negative consequences of developing VT, including development of anxiety, depression, intrusive thoughts, alienation, dissociative episodes, feeling of helplessness, paranoia, hypervigilance, and disrupted personal relationships (Blair & Ramones, 1996; Maier, 2011). The interviewed nurses discussed adverse factors they believed could exacerbate the negative outcomes of working in addiction services, such as carrying work-related issues home and encountering negative team members. They also highlighted certain personal factors that are perceived as unsafe when dealing with traumatised patients, including experiencing intrusive thoughts. While these risk factors were acknowledged by the participants, they all emphasised their ability to recognise and address these negative consequences promptly to prevent the development of vicarious trauma. As emphasised by Aoife, in challenging jobs such as the one working in addiction area, nurses need to develop some coping mechanism and some support around them, to learn how to swim, otherwise it is

very easy to sink. "(...) someone actually said to me, "(...) **you either sink or swim.**" that's what I had - in my head." (AOIFE, Pos. 230)

#### **5.4.2.1 Subtheme: Adverse consequences in working with traumatised patients.**

During the interviews, participants extensively explored the negative implications of working in the addiction sector and discussed the mechanisms they use to overcome such outcomes. Some of the negative consequences mentioned were reaching personal limits, having negative team members, bringing work home, and recognising negative attitudes. A more detailed presentation of these negative implications can be found in Appendix 15.

Regarding personal limits, participants had varying responses. One participant named Sine, who had less than a year of experience, contemplated the possibility of reaching her limits in the future due to the intense nature of the work, saying, "(...) *I wonder if that day will ever come because you- you get to see a lot of tough... you get- you get to see a lot of shit. Like it's- it's really rough sometimes*" (SINE, Pos. 82). Another participant, Santiago, expressed increased happiness since working in addiction services (SANTIAGO, Pos. 446), while Roisin considered quitting nursing due to challenges unrelated to the addiction area (ROISIN, Pos. 91). Patrick reported absorbing varying levels of energy from different patients but never feeling the desire to quit (PATRICK, Pos. 118). Pedro mentioned feeling extremely tired, saying, "*I'm extremely tired. (...) extremely, extremely tired both physically and mentally*" (PEDRO, Pos. 140), attributing it to the stress and demands of the job, particularly intensified during the Covid-19 pandemic.

Paradoxically, in some individual, the repercussions of reaching personal limits were described as having positive outcomes involving personal coping techniques, such as education, taking time off, and stepping back from work. For instance, James, a former addiction worker, decided to retrain as a nurse because he felt he had reached his limits in the addiction field. He expressed his reasons for going back to college, stating, "*I felt stuck and had nothing more to offer*" (JAMES, Pos. 50-54). Susan mentioned that she also reaches her limits at times but quickly overcomes them, usually after a good sleep or by taking time off (SUSAN, Pos. 133). Harry admitted to feeling like he was approaching his limits in the addiction area but managed to bounce back and work effectively. He retired

multiple times, sometimes due to work pressures (HARRY, Pos. 66). Aoife acknowledged that at times it is difficult to avoid reaching her limits, especially when patients verbally abuse her, stating, *"It's very difficult not to kind of reach your limit"* (AOIFE, Pos. 126). However, she mentioned that she is always able to redirect her feelings and cope.

Negative team members were mentioned as a challenge in the work environment, potentially exacerbating the negative consequences of working in a demanding field. Fionn shared an example of resistance from staff members when it came to moving to a new building, saying, *"...we got a new premises, that was lovely, it was better for our clients (...). And it basically took a year for staff to agree to move into it. So, this building was ready to go for a year, because staff were just whinging about (...). But eventually, they just agreed to move in. So, there's a lot of resistance from staff to change"* (FIONN, Pos. 163). Sophie expressed frustration with negative vibes within the team, highlighting one team member who neglected to support others and showed indifference towards staff safety, stating, *"If there's a negative kind of vibe with the staff, I am kind of, 'I'm done. I'm out of here'"* (SOPHIE, Pos. 183). She further explained that the team member in charge of discharging patients failed to support the team, even when faced with situations where staff members were assaulted (SOPHIE, Pos. 201).

Bringing work home, psychologically and mentally, was identified as a challenging outcome associated with assisting trauma survivors. Sophie, with 20 years of experience, mentioned that it took her about 10 years to stop taking work concerns personally and to separate them from her personal life, stating, *"I'd say... if maybe - I might have taken 10 years to be able to recognise and see, 'I can't do this, yeah, that I can't take it personally or I can't change your situation' - probably took about 10 years or so to stop bringing stuff home"* (SOPHIE, Pos. 119). Santiago also emphasised the need to "turn off the nurse" to detach from work-related worries (SANTIAGO, Pos. 382). Detachment and emotional distancing can be negative consequences of developing vicarious trauma, although nurses are encouraged to maintain emotional detachment from patients to avoid emotional involvement.

Negative attitudes towards patients with substance use problems were acknowledged among nurses and the general population. Tiago admitted to having repulsion towards the area due to the loss of friends who struggled with substance use, stating, *"I confess to- when I was young, I have some repulse with this area [sic.] ... uhm... I - I never consumed and uhm... I have uhm... lost some friends because they are – uhm in consummation [sic.] ... is a very years ago"* (TIAGO, Pos. 284). Sophie also acknowledged her previous stigma but mentioned a change in perspective when she started working directly with individuals in the addiction area, saying, *"(...) it was the first time I actually saw the person, not the addiction. So, it was from there - I kind of was more open-minded"* (SOPHIE, Pos. 87). Roisin noted that judgmental attitudes often shift as people gain more life experience, realising the ease with which individuals can fall into substance use, stating, *"as you walk through life, you can see how easy it is to go down that path"* (ROISIN, Pos. 84). Santiago highlighted the pervasive stigma surrounding people who use substances, including the negative judgment faced by those who work with them, stating, *"There's so much as always - there's this stigma"* (SANTIAGO, Pos. 74).

More knowledge about addiction is urgently needed, especially among nurses, as the negative attitudes and consequent countertransference can increase the risk of developing VT (Peled-Avram, 2017).

#### **5.4.2.2 Subtheme: Through personal factors**

Acknowledging the adverse repercussions of vicarious trauma as influenced by personal factors encompasses two primary aspects: 1) individual personal history and history of trauma, and 2) encountering negative challenges characterised by intrusive thoughts associated with traumatic or distressing events.

Personal (trauma) history has been highlighted as a contributor to Vicarious Trauma by various authors (Sabin-Farrell & Turpin, 2003; Beck, 2011). However, the relationship between individual trauma and VT has conflicting evidence (Cohen & Collens, 2013). Many participants acknowledged that their personal history, particularly their experiences with trauma, helped them forge stronger therapeutic relationships and increased empathy for their patients. Some participants without personal trauma mentioned that their stable

upbringing enabled them to cope with others' tragedies. For example, Susan stated, *"I think I would have had a very privileged life compared to these very privileged"* (SUSAN, Pos. 294).

Fiadh shared that although she hadn't experienced trauma or addiction in her family, her understanding and non-judgmental approach improved when someone in her social circle faced addiction (FIADH, Pos. 203). Two participants mentioned how their personal trauma disrupted their professional lives initially, but they successfully managed to prevent negative consequences and grow stronger. Anneke shared a personal experience during her pregnancy that affected her emotionally and physically, leading her to seek support from colleagues (ANNEKE, Pos. 78).

Fiadh disclosed her personal trauma and its impact on her professional life, *"You know, last year, I lost my mom (...) and my sister to cancer. (...) I remember, I started to be kind of angry about this."* (FIADH, Pos. 211). Recognising this, she took a step back and reflected, acknowledging that nurses are human too (FIADH, Pos. 211, 215). Other participants, like Santiago, mentioned how family mental health diagnoses and addiction contributed to their empathy and understanding in their professional roles (SANTIAGO, Pos. 406, 416-422, 458). Harry, who is a member of the traveller community, firmly believes that personal life experiences directly influence his ability to provide effective care, allowing him to empathise and connect with patients, particularly those dealing with substance misuse or addiction, *"and actually put myself at their level and feel comfortable."* (HARRY, Pos. 126-130). Aoife emphasised the importance of personal history and experience in improving professional practice but warned about the possibility of past trauma resurfacing during practice. Maintaining professional boundaries was crucial in such situations (AOIFE, Pos. 174, 214). Patrick expressed *"My own personal history would (...) definitely helped me in the job."* (PATRICK, Pos. 182). Because: *"(...) when I'm- when I was younger, my father died when I was quite young. I was seven. I think that while it was, you know, very traumatic and was an absolutely disastrous for our family. I think it built in a resilience into myself, and a strength (...) It helps me even though it didn't help me at the time."* (PATRICK, Pos. 186).

Sine, drawing from her past trauma and experiences, expressed resilience and a sense of being able to handle challenging situations (SINE, Pos. 242). Her familiarity with addiction through her upbringing has granted her comfort and confidence in dealing with addiction-related situations (SINE, Pos. 170-174).

Roisin shared her own personal history of loss due to alcoholism and how a nurse made a profound impact on her family, inspiring her to make a positive difference in the lives of others (ROISIN, Pos. 167). James mentioned how growing up in a particular environment helped him build better relationships with clients *“we are just in a different position in the same journey.”* (JAMES, Pos. 99).

These participants' testimonies indicate that past traumas and experiences have contributed to the development of defence mechanisms, enhanced nursing practice, and strengthened relationships with patients.

Intrusive thoughts – one of the aspects of vicarious trauma is the cognitive change of the individual. One of those changes is the trigger to have images or flashbacks relevant to clients' traumatic experiences (McCann and Pearlman, 1990). Some visions can be created via thought, built upon the experiences and trauma of others, and afterwards perceived as a true memory or as a flashback. (Sabin-Farella & Turpin, 2003). For instance, Pedro revealed that at the beginning of his career it was undoubtedly a challenging task for him to process all of that. The immense empathy he felt towards others could sometimes become overwhelming, as he recognised the potential negative impact of absorbing someone else's problems. However, through experience, he learned to regulate and distance himself from such thoughts that could potentially affect his personal life after working with individuals enduring significant trauma (PEDRO, Pos. 116).

The story of Anneke, who was pregnant with her baby at the time she was working on her PhD in a methadone clinic, could have resulted in VT if she hadn't established defence measures. She recalls: *“(...) in the beginning of my [motherhood], I was always dreaming that the- the organisation for safety for children (social care) came into my house to- to take away my baby because they thought I wasn't a good mother.”* (ANNEKE, Pos. 78) This

actually happened to her pregnant patient that was using substances during pregnancy and also after the baby was born. Those intrusive thoughts can lead to vicarious trauma, but they are also a consequence of being vicariously traumatised. Thankfully, Anneke was able to take a step back and ask for help, which allowed her to create some strong coping mechanisms that permitted her to continue working in the addiction area. James also acquired the skill of self-protection to a certain extent. Although he recognised that it was impossible to be completely immune to the traumatic details his clients shared, he developed the ability to function independently from it. Rather than becoming emotionally blocked, he learned how to re-establish his grounding when faced with someone else's trauma, ensuring his own well-being. As a result, *"I'm also available at the end of the day (pause) for my personal life."* (JAMES, Pos. 42)

This section reported findings that were consistent with those reported in the literature and relevant references were used to support this. However, VT's effects are pervasive, cumulative over time and across helping relationships, and may be permanent. Working close to people who experienced trauma, can bring a shift in the persons believe system. For instance, if an individual's worldview has been consistently benevolent and meaningful, with those negative changes, they could have a sudden awareness that malevolent and hostile events happen (Molnar *et al.*, 2017). John did remark that in his view *"... there's a small percentage of people who is just really bad. And actually, you can't help them"* (JOHN, Pos. 173).

For the nurses who took part in this second qualitative phase, reaching their limitations looked like a positive event to leverage in their favour and convert it into a learning experience, as they were able to create new coping mechanism and enhance their nursing profession.

#### **5.4.3 THEME 3: The role of leadership- "Like a lighthouse"**

Research studies reviewed (Pearlman 1999; Cummings, 2004; Sommer 2008; McGibbon *et al.*, 2010; Rice & Warland, 2013), have acknowledged the important role of leadership in VT among nurses. The survey conducted in phase one of the present research study

assessed the proactivity of organisational leadership in addressing vicarious trauma and revealed a lack thereof.

Few nurses have expressed a perception of leadership that is hierarchical in nature, emphasising leader-centric approaches to leadership. A nurse stated that leadership is like *“having the qualities of nearly like a lighthouse, that they're there, this fixed structure, that they can guide people and support people and always be there, even if there's a massive storm going on there”* (ROISIN, Pos. 213). However, this viewpoint is incongruent with the prevailing trend towards a more pluralistic approach to leadership that is advocated by a considerable body of contemporary literature (West *et al.*, 2015).

While the study did not explicitly measure distributed leadership, a notable observation among participants is their inclination towards a collaborative and shared approach to decision-making and responsibility. In this model of care, nurses actively contribute by sharing their knowledge and taking ownership of various aspects of patient care. These collaborative dynamic fosters inclusivity and coordination within addiction services. Although not explicitly framed as distributed leadership, this strategy encourages flexibility, autonomy, and enhanced collaboration among the nursing team. The outcomes are reflected in the improved quality of care provided to individuals seeking addiction treatment (Curtis *et al.*, 2021). Anneke revealed a powerful image of what leadership means to her:

*“It's walking beside the patient. And if the patient cannot walk, you take the hand. You lead him to the other land, (...) that's really nursing. And that's- that- that has nothing to do with management strategies. But having the guts to, to take the hand, (...) That is leadership.”* (ANNEKE, Pos. 118)

#### **5.4.3.1 Subtheme: Nurses' participation in leadership**

In this particular section of the interview, the researcher inquired about the participants' personal understanding of leadership, as the literature review highlighted the ongoing uncertainty surrounding its definition (Northouse, 2019). It comes as no surprise that some of the nurses found it difficult to articulate a precise definition of leadership. Harry

explained that leadership is a hidden phenomenon *“for me, is his hidden. It's- it's- it's what actually is reported through nonverbals (...) that's hard to describe. (...) I think the key word would be: leadership sometimes is invisible.”* (HARRY, Pos. 150-154). Some of the nurses expressed their idea of leadership by talking about their “superior” or managers. This instance once again underscores a deficiency in comprehending the essence of leadership and accentuates an antiquated mindset that no longer finds support in current literature.

The prevailing discourse on leadership has transitioned towards a non-hierarchical and non-ranking paradigm, such as distributed leadership. This contemporary perspective advocates for a collaborative and shared approach, wherein decision-making and responsibilities are dispersed among team members rather than concentrated within a select few. Santiago expressed that *“leadership, for me means being 100% available at any time”* (SANTIAGO, Pos. 474). He proceeded to explain that the previous leader at the treatment centre displayed poor leadership resulting in a strained relationship between them: *“I don't have a good relationship with (...) the manager of the place”* (TIAGO, Pos. 409). The aforementioned comments align with a heroic, leader-centric perspective on leadership. They uphold the notion that leadership is an organisational strategy that centralises decision-making authority within a select group of individuals. This viewpoint perceives leadership as a concentrated power rather than a distributed and inclusive approach. However, as Fionn mentioned *“some of the best leaders aren't necessarily managers”* (FIONN, Pos. 168). Consequently, when Tiago was prompted to discuss “leadership skills” instead (as it appeared to be a concept that was easier for him to grasp due to the language barrier), he promptly presented the researcher with two papers. These papers outlined a schedule illustrating the daily shared responsibilities assigned to each nurse at the treatment centre (see Appendix Number 14 a. and b.). He reported that each nurse is *“responsible for a different part of the job”* (SANTIAGO, Pos. 504), indicating a less hierarchical approach to leadership. This observation implies a decentralised structure where responsibilities are distributed among nurses rather than being strictly rank based.

Nursing empowerment has been identified as a means to effectively utilise leadership skills. According to Roisin, leadership is an approach that enables individuals to reach their

fullest potential as nurses by fostering their professional development and skill enhancement, thereby becoming the best nurses they can be (ROISIN, Pos. 213). It is worth emphasising that the nursing profession can benefit from such an approach, as it addresses the need for improved leadership. In this regard, distributed leadership proves instrumental in encouraging employee engagement and active participation in leadership processes. When questioned about their perception of leadership and their awareness of their own leadership within nursing practice, the participants paused for a brief moment, seemingly requiring time to collect their thoughts before responding. Pedro stated that *"(...) I need to take a lot of action myself. And yeah, so I do think I have some level of leadership"* (PEDRO, Pos. 176).

Anneke had no doubts about what leadership was in the field of nursing, as evidenced by the view she shared. She believes that leadership entails the ability to recognise and address the issues faced by patients, effectively bringing them to the forefront of discussion. As a leader, she sees herself as the advocate for the patient, safeguarding them from potential harm posed by other professionals or life's challenges. For her, leadership involves empowering patients to overcome addiction or dual diagnosis issues, teaching them that they are more than their struggles and that they deserve happiness. *"(...) And I think the leadership in an addiction nurse is not to be too much influenced by the addiction behaviours, but to see through it, then you are a real addiction nurse."* (ANNEKE, Pos. 110)

Susan shared her view of leadership highlighting the same aspect of Anneke, to be the voice of the patients. According to Susan leadership is making the patient comfortable and confident that the nurse will speak up for them. She stated that her patients will say *'She gets me (...) she'll speak up for me when (...) I am in too much pain'* (SUSAN, Pos. 382-386). Fionn provided yet another crucial explanation for leadership. One of the significant hurdles he highlighted is the resistance individuals sometimes have towards being led. Regardless of how inspirational someone tries to be as a leader, some people simply do not respond to it. In his view, leadership involves motivating and inspiring others to join them, which extends beyond just being a manager. However, leadership does not always manifest in every situation (FIONN, Pos. 168).

Fiadh mentioned that motivating both clients and staff by emphasising the purpose behind their work is crucial to her. She believes in leading by example, understanding that new staff members observe her actions and how she handles various situations, interacts with clients, and communicates with them. She sees the impact of good leadership cascading down like a waterfall, influencing everyone along the way. Consequently, she recognises that the way she treats her team as a leader significantly affects how clients are treated within their care (FIADH, Pos. 259).

The majority of nurses expressed the importance of fostering close relationships and trust among their colleagues, highlighting it as a valuable coping mechanism in the face of job demands. However, they also acknowledged that they often work independently and have unique responsibilities within their organisation, providing them with opportunities to apply their leadership skills. *“I suppose (...) leadership skills are involved in another person. And therefore, if you're working alone, which I do 90% of the time, I have no one to lead unless you count working with clients, but I tend to think of leadership as in colleagues.”* (FIONN, Pos. 204). Those comments lead once again to the distributed leadership approach.

#### **5.4.3.2 Subtheme: Collective work**

James, a clinical nurse manager, articulates his perspective on leadership, viewing it as *“I believe in leadership, as helping others achieve the goals.”* (JAMES, Pos. 133). His subsequent discussion of his managerial style and responsibilities aligns closely with the principles of collaborative leadership. Rather than merely dictating tasks to individuals, James emphasises the importance of providing assistance, guidance, and establishing team objectives. This approach demonstrates a high degree of trust in the team, eliminating the need for excessive control or micromanagement. James believes in delegating tasks based on trust and confidence in his team's capabilities, allowing them to successfully complete their assigned responsibilities. Notably, his leadership style leans toward democracy, seeking to actively involve team members in decision-making processes whenever feasible (JAMES, Pos. 133). These statements from the participants further reinforce the significance of distributed leadership in their perspectives. The characteristics mentioned, such as collaboration, trust, and shared decision-making,

exemplify the core principles of distributed leadership, which are vital for cultivating effective leadership within the team. Pedro, in particular, underscores the importance of team building in preventing vicarious trauma. He emphasises the proactive engagement of managers with their staff members, aiming to prevent potential trauma and genuinely understand them as individuals beyond their roles as nurses. According to Pedro, managers must recognise that each person on their team is a unique individual, going beyond generic labels like "nurse Pedro" or "nurse Nicki." This level of understanding necessitates a strong relationship between managers and team members, with mutual awareness and shared responsibility, rather than solely relying on the manager to facilitate such connections (PEDRO, Pos. 164). These insights align closely with the principles of distributed leadership, highlighting the significance of collaboration, empathy, and relationship-building in promoting effective leadership and fostering a supportive work environment.

Sophie, who at the time of the interview was recently promoted to Clinical nurse manager 2, also highlighted the importance of teamwork in her new role: *"I'd still been very much part of the team and involved in the daily work (...) I suppose been more a team player that I don't want to be seen as somebody kind of just... delegating work to them (...)"* (SOPHIE, Pos. 209-217). Also, according to Harry, leadership involves not only motivation and support but also immersing oneself alongside others, collectively experiencing the challenges and intensity they face. It requires being present in the midst of the fire that burns underneath, symbolising the shared struggles and trials encountered by the team (HARRY, Pos. 150). Another participant strengthens the idea of collective work by expressing the following: *"I suppose leadership to me means (...) that you can go to - that you can trust - that you know is going to help you. And if they can't find out what's wrong, then they'll find someone who can (...)"* (ROISIN, Pos. 213).

Fiadh's contribution serves as a fitting conclusion to this subtheme, as it emphasises collaboration as a key aspect of distributed leadership. According to Fiadh, *"Leadership means to me... (pause) (...) you're leading a team within a collaboration. So, like, I'm not just telling people what to do, where - we're making decisions as a team."* (FIADH, Pos. 255). This perspective aligns with the principles of distributed leadership, which

emphasise the importance of shared decision-making and active involvement of team members in shaping the direction and outcomes of the team. Fiadh's statement underscores the notion that leadership is not about dictating tasks, but rather fostering a collaborative environment where the team works together towards common goals.

#### **5.4.3.3 Subtheme: Importance of leadership in VT - Positive communication and VT**

The significance of leadership within nurses' organisations was identified as a central factor. However, it was also acknowledged that the current state of leadership is insufficient. Tiago addressed this concern by emphasising the crucial role of leadership in effectively addressing vicarious trauma in the context of nursing addiction services. Nevertheless, he pointed out that the existing understanding of leadership and VT falls short in meeting the specific needs and requirements of nurses in this domain. (TIAGO, Pos. 425).

Positive communication and being open with patients and the team, have been highlighted by the participants as being key characteristics of leadership in preventing the development of VT.

Anneke shared another powerful insight on leadership (ANNEKE, Pos. 126). When considering leadership in the context of interacting with patients, she highlights the importance of acknowledging the potential risk of experiencing vicarious trauma. It is crucial to have an open dialogue about this matter, both with colleagues and oneself. If help is needed or if a colleague points out any problematic behaviours resulting from vicarious trauma between the nurse and patient, it is essential to be receptive and open to feedback. Recognising and addressing this issue requires a genuine sense of professionalism. The next step involves being transparent and actively engaging with others to navigate and mitigate the impact of vicarious trauma. It is notable that the participants' perspectives and statements consistently align with the key elements of distributed leadership, even though they did not explicitly mention it. These shared characteristics suggest an inherent inclination towards distributed leadership within their understanding and experiences of effective leadership in nursing contexts.

Harry also highlighted communication as part of leadership characteristics to minimise VT: Ensuring the establishment of essential elements such as communication structures for patients and staff, as well as implementing debriefing processes for the staff, falls under his leadership responsibilities. Whether these measures are an inherent part of leadership or facilitated by leadership is a separate question. It is crucial to actively listen to the patients and comprehend their needs, as this enables the implementation of effective systems and protocols that promote practices aimed at preventing trauma (HARRY, Pos. 170). Aoife also commented on the communication skills: *“communication is really important. You know, like sharing stories with your team, sharing different techniques on how to calm patients... how to deal with them, then obviously talking about the most- latest evidence or knowledge. So yeah, communication is really important, because then it makes them feel less alone. If there is a challenge.”* (AOIFE, Pos. 162).

John remarks on the importance of having clear and proper leadership skills as it engenders a heightened sense of confidence among nurses, therefore *“you’ll be able to react ... in a calm, and – (...) with the sympathy and with the kindness... but you need to know exactly: “what do I need to do here to help this person?””* (JOHN, Pos. 294). James is in a managerial position, and considered a leadership model for some colleagues, therefore he stated that the importance of leadership in VT lays in leading by example: *“(...) I need to model how to respond to trauma, and I (...) lead by example. So, if I’m expecting my staff to explore the trauma and the impact that the trauma may have on them, I need to do that myself as well. (...)”* (JAMES, Pos. 137). Aoife shared her opinion on the role of leadership in vicarious trauma, stating that *“it’s a massive part of it. Because you have to be able to understand how to separate yourself from it [VT]. And I think one of the easiest ways of doing that is constantly reminding yourself, “I am expected to be this role”.* (AOIFE, Pos. 214)

All participants unanimously recognise the pivotal role of leadership in preventing and mitigating vicarious trauma. Specifically, certain facets of leadership, such as effective communication and fostering openness among colleagues and patients, have been emphasised as crucial elements in addressing VT. These key elements align with the

principles of distributed leadership, suggesting that adopting this approach would be advantageous for organisations in minimising the occurrence of VT.

#### **5.4.4 THEME 4: What kind of support is required? - “I need your help.”**

Theme number four underscores the critical importance of nurses having a robust support system in place to cope with the demands of their job. This support system includes various external sources such as family and friends, independent supervisors, and once again, fellow team members.

##### **5.4.4.1 Subtheme: Social, organisational and peer support**

This subtheme emerged as part of the theme four “what kind of support is required?”. The literature review extensively discusses the significance of peer support, organisational support, and social support in protecting healthcare professionals from the potential trauma that can arise from their work with patients. These forms of support are seen as essential resources that enable professionals to cope effectively with the demanding nature of their job and maintain their well-being. Within this subtheme, the perspectives of the participants further reinforce the importance of these support systems. The majority of nurses acknowledged the valuable role of social support, particularly from their family and friends. They highlighted the crucial role that personal connections play in providing emotional support, understanding, and a sense of respite from the challenges they face in their work. By confiding in and seeking solace from their loved ones, nurses can find comfort and strength to navigate the demands of their profession.

Additionally, peer support emerged as another vital component. The participants expressed the significance of connecting with colleagues who understand the unique experiences and stressors associated with their profession. Sharing their struggles, seeking advice, and offering support to one another creates a supportive network that fosters resilience and well-being. The shared experiences among peers provide a sense of validation, encouragement, and camaraderie that can be invaluable in managing the emotional toll of their work. Furthermore, organisational support emerged as a key factor in the well-being of healthcare professionals. While many participants acknowledged

receiving support from their respective organisations, some expressed dissatisfaction with the level of support provided. They felt that their organisations fell short in offering adequate resources, such as debriefing sessions, counselling services, or structured programs to address the potential trauma and stress they encounter. This finding underscores the need for healthcare organisations to prioritise and actively implement strategies that address the well-being and support needs of their staff.

Overall, the participants' experiences in this subtheme align with the existing literature (Mealer, *et al.*, 2009; Fraley & Aranda, 2019; Huggard, Parker & Giles, 2019) emphasising the critical role of peer support, organisational support, and social support as protective measures for nurses. It highlights the necessity for healthcare organisations to recognise and prioritise the provision of comprehensive support systems that address the unique challenges faced by professionals in their pursuit of providing quality care while preserving their own well-being.

**Family and friends** have been mentioned as strong support for some of the nurses interviewed. Sine mentioned that *“My mother's a nurse, and my sister's a nurse as well. So, I use them [for support].”* (SINE, Pos. 166). Similarly, Susan stated that when something critical or acute happens at work, she'd *“ring me [sic.] mother I'd rant to her.”* (SUSAN, Pos. 217). Later on, in the interview, Susan also said that she would turn to friends for distraction and support: *“Friends with kids are great because they're a good old distraction”* (SUSAN, Pos. 286).

**Debriefing** has been also mentioned as a form of support after an acute stress or work trauma. Roisin stated that: *“I do think debriefing is a very good idea as well, because then like if something happens like that you can chat to people. (...) if you had them trained up in kind of counselling roles, that would help them - help the staff better ... kinda exposed to this and the acuteness of it... and give them time to stand back.”* (ROISIN, Pos. 123). However, Fionn had a clear and strong view on the topic of debriefing and expressed his scepticism about this approach: *“the research on it is pretty bad, in that- the research would suggest people who get this debriefing are probably more likely to end up with trauma problems than people who don't.(...) there is ...things available(...), if - if something*

*happens, you're allowed to have it [debriefing]. And I wouldn't want this. I did it once. And I will never do it again.*" (FIONN, Pos. 220).

Harry indicated that he gains support from external services: *"I've got an independent supervisor that I use... And that's an essential component for me."* (HARRY, Pos. 118).

**Peer support** was considered important by the nurses who were interviewed. John mentioned peer support as one of his coping mechanisms when in distress: *"I actually look for help from other nurses... (...) I would know stuff and they'd help me (...)"* (JOHN, Pos. 106). This support was confirmed by Anneke: *"I knock on their [colleagues'] door and I say, "Do you have time for me because I need your help."* (ANNEKE, Pos. 134). The key factor for support in the workplace, according to Fionn (FIONN, Pos. 220), is having supportive colleagues. However, this support is not always guaranteed, as it depends on the presence of understanding and helpful colleagues. Establishing a relationship with such colleagues allows for open communication, where one can reach out and share experiences or seek assistance in challenging situations. The participant emphasises the importance of having some form of staff support, and in their view, this support predominantly comes from colleagues.

Sine revealed using peer support too: *"I use my co-workers as well, when I'm in doubt about something."* and *"I talk to them a lot."* (SINE, Pos. 166 and 178). Once again, Roisin mentions peer support: *"I think as nurses, we're very good to chat with each other on it, and I think that our nurses' colleagues are a great support to each other."* (ROISIN, Pos. 123). And also, Fiadh would use this support: *"I definitely rely on my fellow managers, like, just bring them up and go, "Oh, my God, like, the craziest thing just happened." So I definitely want to rely on my ... uhm... for peer support."* (FIADH, Pos. 143). However, being aware of the importance of peer support, the participant highlighted the potential impact of toxic peer relationships. She recounted instances of experiencing negative peer support, where sharing a difficult day's experiences was met with a similarly negative response from a colleague expressing their own dissatisfaction with the job. In contrast, the participant emphasised the need for positive peer support, where someone can lend an empathetic ear, listen to their concerns, and provide reassurance during challenging times (FIADH, Pos. 187).

#### **5.4.4.2 Subtheme: Health organisations support**

This subtheme sheds light on the critical role of organisational support in preventing vicarious trauma and ensuring the well-being of nurses. Participants emphasised the importance of receiving support from their organisations, but unfortunately, many expressed disappointments in the lack of such support. Supervision, debriefing, and ongoing education and training were identified as vital forms of support that should be provided by managers to assist nurses in coping with the demands of their work and mitigating the risk of vicarious trauma. However, participants reported that these important support mechanisms were largely absent from their work environments. The absence of regular supervision and debriefing sessions meant that nurses lacked a safe space to process and reflect on their experiences, potentially leaving them more vulnerable to the cumulative impact of vicarious trauma. Consequently, this would also have an impact on leadership. Additionally, the lack of educational opportunities and training programs focused on vicarious trauma prevention and self-care further contributed to the participants' sense of inadequate support.

Within the context of organisational support, participants recognised the crucial role of leadership and management. They highlighted that effective leadership is essential in creating a supportive and nurturing work environment where nurses feel valued, heard, and supported. However, some participants lamented the absence of strong leadership and management practices within their organisations, which further exacerbated the lack of support.

Overall, this subtheme underscores the importance of organisational support in protecting nurses from the detrimental effects of vicarious trauma. It emphasises the need for organisations to prioritise the implementation of support mechanisms such as supervision, debriefing, and ongoing education and training. Additionally, fostering a more inclusive and empowered work environment, with the goal of creating a supportive and engaging leadership culture would create an environment that promotes the well-being and resilience of nurses in the face of challenging and emotionally demanding work. This can be achieved by shifting towards a more modern approach such as the one of distributed leadership.

Pedro felt that he was well supported in his organisation: *"(...) I was lucky enough to be surrounded by, you know, colleagues, and managers that always supported me. (...) they have always been very supportive."* (PEDRO, Pos. 124). Also, Fiadh in her managerial role, communicated that: *"leadership from my role will be making sure that the staff is supported, have adequate training, that they're taking their annual leave, that they're, that they're taking time for themselves, that they're taking the breaks (...)"* (FIADH, Pos. 255). James stated that his organisation provides nurses with *"a system where we are getting support from... from an external provider... is not clinical supervision is more towards... (pause) (...) is more about therapy to deal with the difficult emotions that are triggered by our daily work"* (JAMES, Pos. 141). Although few nurses felt supported by their organisation, fourteen out of fifteen participants highlighted that their organisation weren't proactively addressing vicarious trauma.

However, the majority of participants felt unsupported by the organisations. Notably, each participant stated that vicarious trauma was not discussed during the interview process to work in the addiction area, despite the fact that it was identified as a significant finding in the first quantitative phase, which overall correlated that nurses were at moderate to high risk of developing VT.

a) Supervision was highlighted in the literature to be of crucial importance in decreasing VT among employees. Nevertheless, some of the nurses confessed a general lack of supervision within their organisation and confirmed by Fionn: *"There just really isn't uhm-supervision available for most nurses."* (FIONN, Pos. 228). Susan also provides an insight on this matter: *"(...) see, the nurses don't do supervision. So, the social workers, they do supervision. It's compulsory. It's part, like what counsellors do it's, it is compulsory, have to do it. Nurses don't. And I think we should."* (SUSAN, Pos. 474).

b) Similarly, John emphasised his organisation's lack of guidance and assistance, specifically the absence of supervision and debriefing.

*"(...) [there was] a man sliced open -his face ... hanging off him... and I had to deal with him to get him wrapped- he had to go straight to the hospital... but the only thing I could do with a procedure was to stay calm. now... that affected me. That was tough now. I don't even remember. We just cleaned up after everything was all right. That's all we... they said. "Yeah, Grant, get a cup of tea." That was it."* (JOHN, Pos. 185)

When asked if he had received a debriefing or follow-up after Patrick's story of a terrifying accident, he replied: *"no, no, no, that's very rarely in nursing. I find it's very rare that you'd ever be asked how you feel afterwards..."* (PATRICK, Pos. 166).

Another example was shared by Roisin who stated that because of the effectiveness of her and her nursing colleague's approach to their patients with addiction problems, the organisation increased their workload without providing commensurate assistance or support: *"So they saw us as being able to work with these patients, but we didn't get the extra support."* (ROISIN, Pos. 249).

The participants were asked if they had received support and debriefing following a serious workplace incident, and if so, which modality of approach was employed. Unsurprisingly, the majority of participants reported a lack of support following a serious workplace incident, as well as a lack of supervision or debriefing. As highlighted by Santiago, once again peer support is more used than organisational support in case of distress: *"My close colleagues and the nurses .... Yeah, we talked about it. Yeah. But no, the institution. (...) Unfortunately, they don't... (...) the organisation itself didn't value our trauma..."* (SANTIAGO, Pos. 358). Harry too relied on colleagues' support but didn't receive any organisational support after a critical event.

Frequently, the study participants articulated that insufficient time and resources were two additional factors that engendered a sense of inadequacy in their perceived level of support. Santiago described an incident at work in which he felt a patient committed suicide due to insufficient support: *"I didn't even have a good time to talk with him properly. Yeah, me and my colleagues, we all do our best, but yet, yeah, it's lack of time,*

*lack of resources.*" (SANTIAGO, Pos. 306). Other participants (FIADH, Pos. 243; ROISIN, Pos. 197; JOHN, Pos. 270; SANTIAGO, Pos. 298) specifically mentioned being understaffed. As a consequence of this underlying feeling of being unsupported by their management and organisation, the majority of nurses who participated in the interviews expressed a reluctance to approach their managers in times of need. *"No, I keep out of their hair. I don't go to them, or if I had personal issues, I wouldn't be you know, let's say I'd a parent sick. I wouldn't be telling them unless I needed them to get signed off or something"* (SUSAN, Pos. 237). Additionally, some expressed a negative relationship with their managers, which added to the nurses' feeling of incompetence and despondency: *"I don't have a good relationship with the person who is the leadership (...) And sometimes it's difficult to live with this person and the comprehension [understanding, sic] of my capacities, and where I can be more useful. (...) she don't [sic] believe me and make me feel bad. And don't believe what I say."* (TIAGO, Pos. 409).

c) Education and training emerged as significant factors in the prevention of vicarious trauma, as supported by both the existing literature and the findings from the first phase of quantitative research. The importance of continuous learning and professional development to equip healthcare professionals with the necessary knowledge and skills to address the challenges of their work was underscored. However, it is worth noting that only a small number of participants (specifically PATRICK, Pos. 198; ROISIN, Pos. 187; JAMES, Pos. 116) acknowledged their organisations for providing support in terms of trainings and education. These three participants expressed gratitude for the opportunities provided by their organisations to enhance their knowledge and skills related to vicarious trauma and self-care. On the other hand, the majority of participants conveyed a sense of dissatisfaction with their organisations' lack of support in terms of education and training. They felt that their organisations did not prioritise or adequately address the need for comprehensive training programs to mitigate the risks of vicarious trauma. This absence of support left these participants feeling ill-equipped and unsupported in their efforts to protect themselves from the potential negative impacts of their work. Overall, while education and training were recognised as important factors in

preventing vicarious trauma, the lack of consistent support in this regard from participants' organisations was a significant concern.

#### **5.4.5 THEME 5: The rise of the Addiction Nurse- “We try not to fail”.**

The findings from qualitative phase two of this research shed light on a particularly intriguing aspect of the nurses' experiences - their unexpected entry into the realm of addiction services. It was discovered that every nurse who participated in the study had found themselves working in addiction services or with patients who suffer from addiction purely by happenstance, rather than as a deliberate choice or career path. This revelation challenges the notion that nurses in this field actively seek out such positions and highlights the serendipitous nature of their involvement. Unlike other specialised areas of nursing, the addiction field lacks a well-defined and standardised framework. As outlined in Chapter Two of the Literature Review, there are no mandated training programs or designated areas of specialisation for nurses working in addiction treatment centres. Each participant shared their personal narrative of stumbling upon this field unintentionally, often through unexpected circumstances or opportunities that presented themselves. Despite their initial lack of intention, these nurses grew to develop a genuine affection for working in addiction services.

However, it is important to acknowledge the unique challenges that nurses face when working with individuals who struggle with addiction. The nature of addiction can be complex and demanding, requiring a comprehensive understanding of the underlying issues and effective approaches to care. The participants in the study recounted their encounters with various obstacles in their work with individuals grappling with addiction problems, ranging from the complexity of the conditions to the stigma associated with addiction. Despite these challenges, the nurses exhibited remarkable resilience and an unwavering commitment to their patients' well-being. They continuously sought ways to enhance their skills, broaden their knowledge, and adapt their approaches to better meet the needs of their patients. Through ongoing professional development and personal growth, they discovered new strategies and techniques to navigate the complexities of addiction care. Their ability to overcome obstacles and find satisfaction in their work

reflects their dedication to providing compassionate, comprehensive, and effective care to individuals with addiction problems.

Overall, the nurses' journey into addiction services, driven by happenstance rather than deliberate choice, underscores the need for greater recognition and support for this critical area of healthcare. It emphasises the importance of tailored training programs, professional development opportunities, and organisational resources to equip nurses with the necessary skills and knowledge to address the unique challenges of addiction care. In addition, the shift towards a distributed leadership, which empowers nurses who work in addiction services to recognise the expertise and contributions of all team members, allowing them to actively participate in leadership activities. By acknowledging the unexpected paths that led them to this field and celebrating their resilience, the study highlights the invaluable contributions of nurses in addiction services and the vital role they play in supporting individuals on their journey to recovery.

#### **5.4.5.1 Subtheme: Choosing this specialisation.**

As previously emphasised, the fifteen nurses who participated in this study openly stated that their decision to work in the field of addiction was a result of an unexpected occurrence rather than a conscious choice. As Susan remembers: *"it wasn't something I wanted to do when I was a student, definitely not, no way"* (SUSAN, Pos. 37). Mental health nurses, in particular, described their shift to the addiction area after working in psychiatric facilities. Interestingly, general nurses and intellectual disability nurses, who were also included in this phase, found themselves similarly in addiction services through unexpected pathways, much like their mental health counterparts. Regardless of their initial career paths, all participants shared a common thread: working with this vulnerable population provided them with a profound sense of fulfilment and satisfaction, and this intrinsic reward became the driving force behind their continued commitment to the addiction field. Despite their unintentional entry into addiction services, these nurses found a strong resonance and meaning in their job, allowing them to negotiate and overcome the difficulties inherent in this demanding field. *"I just find addiction... uhm... It's very, it's quite selfish... Actually. I just find addiction... Fascinating. I just think it's so - so fascinating. And I just build those relationship, with people with addiction... because*

*that trauma, they don't have that trust. When you do build that trust, you get such a turnout of that.*" (FIADH, Pos. 82).

#### **5.4.5.2 Subtheme: Significance of the job**

The nurses who took part in the research highlighted the intense sense of appreciation they feel after a productive day at work, which they say often acts as a source of purpose in their professional lives. Pedro also expressed a sad truth, that often he felt that *"If it wasn't for me, no one would be looking at them..."* (PEDRO, Pos. 60) and that sometimes he feels like he didn't do enough for that patient *"but in the end of the day, if it wasn't me, that would be nothing done at all."* (PEDRO, Pos. 64). Many participants stated that it is the little, incremental results and positive changes in their patients that provide them delight and fulfilment. Tiago mentioned finding meaning to his work in the honoured relationship that he can create with those traumatised patients, when *"they asked me to continue to work with them. it's grateful [sig] for- for me."* (TIAGO, Pos. 320). Especially, some nurses such as JOHN, (Pos. 110 and) specifically emphasised the unique nature of addiction care in comparison to other specialisations, emphasising that, unlike in areas where physical injuries can be fixed, addiction nursing entails dealing with complex and multifaceted challenges that may not have simple solutions. As a result, they underlined the need of addiction nurses having realistic expectations and being able to manage the field's complexities. *"(...) really small actions, (...) can have a tremendous impact on someone's life."* (PEDRO, Pos. 68).

#### **5.4.5.4 Subtheme: Challenges**

When working with a particularly vulnerable population in an inherently demanding profession, the presence of challenges becomes evident. Among the issues raised by participants, frustration emerged as a significant obstacle impeding the smooth execution of nursing interventions. It is important to note that this frustration is not directed against the patients, but rather at the system and organisations that have failed to adequately support these healthcare professionals. As Pedro confessed: *"So, I think that the lack of options limits (...) my nursing intervention (...) Because, again, there's not enough entities that could help the population that I work with."* (PEDRO, Pos. 72). Fionn also revealed

that the challenges faced are due to lack of support from the organisation and have nothing to do with the patients themselves (FIONN, Pos. 163).

Frustration was mentioned also towards the outcome of care, as often patients' relapse. As mentioned by Tiago *"some sometimes... (laughing) very often, they don't come back. This is [sig] one difficult sometimes. And we do -we try to when they accept- We try not to fail."* (TIAGO, Pos. 401-402). Tiago explained that he believes that people with addictions already feel that people have failed them, they don't need nurses to fail them too. Fiadh also shared her frustration when the care plan doesn't have a happy ending: *"That's probably the most frustrating thing is that you- you could put the best plan in place for them... and you know, and often it doesn't work out and (...) I've learned over the years... I don't get obsessive if I put a plan in place or if I make an appointment and they don't go (...)"* (FIADH, Pos. 66)

Roisin concluded saying that: *"challenging behaviour comes from you not being able to give your time to these people, and they start getting agitated, and then they start acting up... but, if we had the time and resources to give these people, I think the challenging behaviours would be reduced."* (ROISIN, Pos. 88)

Another challenge that was mentioned was manipulation. Different nurses mentioned it during the interviews (JOHN, Pos. 165; SUSAN, Pos. 270). Harry found staffing issues a challenge, not the patients: *"The most challenging aspect? Well, I would say staffing (laughing) (...) I think the most challenging bit is ...the... the ability to work as a team, and that what I currently say is that we work in isolation, and we don't work fully as a team. So that's the challenging bit, but that has the direct impact upon the patient care."* (HARRY, Pos. 58).

Other general challenges, are once again not directed towards the patients themselves, rather directed at the system: *"discharge somebody that's homeless. Or a pregnant lady ...that I find that tough."* (SOPHIE, Pos. 103). Frustration for family members of the patients was mentioned too.

Susan expressed that the predictability of the patient's life was particularly upsetting: *"You can almost say, if you if you met them when they were a child, you know, you'd go 'I know you're going to end up homeless'. Some of them are predictable, not that it's, no, they're equally as tragic. But it's, it's, there's just something, definitely it just hits a nerve. I don't know what it is. I think maybe because I'm that person. So, I'm that third level, educated, own home, that could be me."* (SUSAN, Pos. 209)

Challenges are seen also when patients exhibit challenges behaviours. For instance, Aoife stated that she could find it challenging at times when she tries to *"getting through to them, when they were frustrated, you know, they could be quite aggressive. So, it was very difficult to find a way to get through to them without sounding condescending"* (AOIFE, Pos. 94). Also, Fiadh mentioned it: *"I've been physically assaulted, in my job, you know, in three different occasions. (...) But thankfully, with good support I didn't give up. And I'm really glad that I didn't ..."* (FIADH, Pos. 78)

## **5.5 Conclusions**

In conclusion, this qualitative phase aimed to delve deeper into the insights gained from the initial quantitative phase. Thematic analysis was employed to analyse qualitative data pertaining to the experiences of nurses working in addiction services and the effects of vicarious trauma on their personal and professional lives. The objective of this phase was to explore nurses' encounters with vicarious trauma, their perceptions of protective factors, and their views on leadership and its role in mitigating vicarious trauma.

Based on the findings of the second qualitative phase, nurses working in addiction services undergo both positive and negative consequences as a result of their interactions with traumatised patients. This is consistent with the literature reviewed (Robinson *et al.*, 2003; Sinclair & Hamill, 2007; Sabo, 2008; McGibbon, *et al.*, 2010; Maier, 2011; Rice & Warland, 2012; Sabo, 2011; Hartley, 2018; Beaune *et al.*, 2017; Garner, 2017; Manning-Jones *et al.*, 2017; Newman, 2019).

The nurses reported that their experiences helped them enhance their coping mechanisms, acquire new qualities, and improve their best practices in the field of addiction. They also gained knowledge and understanding of the significance of vicarious trauma, contributing to their personal and professional growth. The awareness and knowledge of vicarious trauma will not only benefit the nurses themselves but also the organisation, as it will prioritise the well-being of the nurses and reduce the likelihood of turnover. The knowledge presented in the literature review (Beaune et al., 2017; Newman et al., 2019) holds significant promise for enhancing patient care. Despite the evident importance, it is concerning that numerous nurses within the addiction field remain unaware of the risks associated with vicarious trauma. Notably, the absence of research specifically addressing vicarious trauma in addiction nursing underscores the prevailing lack of awareness in this domain. These findings emphasise the critical need for nurses to grasp the concept of vicarious trauma and incorporate it into their clinical practice to ensure comprehensive patient care and mitigate potential negative impacts on healthcare providers. Despite the negative changes associated with vicarious trauma, the interviewed nurses in this study shared positive changes and experienced professional and personal growth, which are common consequences of developing vicarious posttraumatic growth. The nurses emphasised that personal traits such as empathy, compassion, understanding personal limits, and having realistic expectations had a significant impact on their ability to handle the emotional demands of their jobs. These character traits also equipped them with the necessary abilities to provide the highest level of care to their patients (Manning-Jones et al., 2017; Beaune et al., 2017).

Vicarious trauma is defined as the accumulation of stress resulting from continuous empathic engagement that exposes individuals to another person's trauma. The changes brought about by vicarious trauma may not be immediately apparent at the start of a nurse's career. A young Danish nurse named Sine, with less than a year of experience, expressed concern about the potential long-term effects of working in the addiction field and acknowledged the impact it would have on her.

One significant finding from the study was that nurses, often without being aware of it, were practising leadership attributes similar to distributed leadership. This finding directly

addressed the fourth objective and provides robust support for the interconnectedness of leadership and vicarious trauma. The research also shed light on how leadership can effectively manage and prevent vicarious trauma. The nurses highlighted the importance of effective communication with colleagues, fellow nurses, and management in ensuring the efficient operation of nursing practice and the delivery of high-quality care to traumatised patients. They emphasised the value of leadership traits such as empathy, active listening, and collaborative work in helping nurses cope with the challenges inherent in their roles. For instance, Fiadh stressed the crucial role of emphasising the purpose behind their work in motivating both clients and staff. It is worth noting that motivation can stem from both intrinsic and extrinsic factors. Distributed leadership proves to be a valuable leadership approach for extrinsic motivation, as it creates the necessary conditions at work for staff and clients to feel empowered. This more contemporary view of leadership was not mentioned in the literature reviewed.

Trust and motivation are essential qualities for distributed leadership to effectively strengthen leadership and foster a positive work environment. When team members and leaders trust one another, it establishes the foundation for mutual respect, open communication, and shared accountability. This, in turn, enables the delegation of authority and decision-making, fostering collaboration and empowering individuals to contribute their unique ideas and experiences. Furthermore, motivation plays a critical role in inspiring active participation in leadership activities, encouraging individuals to take initiative, and continually improve their skills. By creating a supportive and empowered work culture, distributed leadership can cultivate trust, motivation, and a healthy work-life balance among team members, ultimately leading to improved leadership outcomes.

The traits and ideas expressed by the study participants, including collaboration, shared decision-making, team building, recognition of individuality, and a non-hierarchical approach, closely align with the principles of distributed leadership.

The study also revealed that nurses working in addiction treatment programmes require support at social, organisational, and peer levels to prevent and minimise vicarious trauma. Effective prevention and management of vicarious trauma necessitate

organisational assistance in the form of training and resources, as well as social support from family and friends. Peer support, such as debriefing sessions and support groups, was found to be crucial for nurses in managing the emotional demands of their work.

However, the nurses in the study expressed dissatisfaction with organisations ill-prepared to address vicarious trauma, often feeling unsupported by their managers. This highlights the need for healthcare organisations to recognise the importance of vicarious trauma and provide adequate services and support to their workforce, and to advocate for a complete transition towards a distributed leadership approach.

In conclusion, these qualitative findings provide valuable insights into the experiences of nurses working in addiction treatment centres and underscore the significance of leadership in preventing and managing vicarious trauma. The findings emphasise the importance of education and training, effective communication, and appropriate support to assist nurses in managing the emotional demands of their jobs and providing optimal care to patients with addiction problems. Furthermore, the study highlights the need for healthcare organisations to acknowledge the impact of vicarious trauma on nurses and provide the necessary resources and support to prevent and manage its effects (Sinclair & Hamill, 2007). In the next chapter both the quantitative (Chapter 4) and the qualitative (Chapter 5) findings will be integrated. Based on the mixed-methods design, meta-inferences will be drawn from the combined study's findings.

# Chapter Six

## Integrated Findings

### 6.1 Introduction

This chapter aims to discuss the integration between the quantitative and qualitative findings within the context of mixed methods research. It is important to note that as this study employed an explanatory sequential design, the integration was carried out at multiple junctures. The first integration involved the initial connection of the two distinct phases, whereby participants from the quantitative phase, self-selected for the subsequent qualitative follow-up phase (Creswell *et al.*, 2003) (see chapter 3 – Methodology).

Explanatory sequential mixed methods design posits that both forms of data—quantitative and qualitative—contribute distinct types of information. Qualitative data, characterised by its open-ended nature, offers contextually rich insights, while quantitative data, marked by its closed-ended structure, furnishes precise and measurable outcomes. Expanding on this assumption, the chapter acknowledges the inherent strengths and limitations of each data collection type. It examines the realm of mixed methods integration, recognising the potential for synergistically amalgamating the strengths of quantitative and qualitative data. By competently combining the robust features of these divergent data approaches through a joint display, researchers can transcend the limitations of each method, facilitating the development of a more comprehensive and nuanced understanding of the research objectives (Creswell & Plano Clark, 2018).

This chapter assumes a pivotal role by exploring the potential of integrating quantitative and qualitative findings through the joint display approach (Guetterman *et al.*, 2015). It endeavours to unearth unexplored avenues for investigation, fostering an enhanced

understanding of intricate research phenomena. By utilising a joint display, this research can effectively bridge the divide between quantitative and qualitative methodologies, thereby establishing an integrated and cohesive framework that empowers it to transcend limitations and gain a more solid footing in unravelling the complexities inherent in research endeavours.

This chapter commences by outlining the rationale behind and the decision-making process involved in utilising a joint display. Subsequently, the joint display is presented for the first and second objectives. Ultimately meta-Inferences derived from the integrated findings are presented, followed by a conclusion.

## **6.2 Rationale for selecting a Joint Display Approach**

Joint display, which is widely used to demonstrate integration of data analysis and integration was utilised (Guetterman *et al.*, 2021). Joint displays allow for a comparison of the results of qualitative and quantitative approaches and can aid in the identification of patterns, connections, and discrepancies in the data. Numerous integration procedures and various types of joint displays exist (Guetterman *et al.*, 2015; Guetterman *et al.*, 2021; McCrudden *et al.*, 2021; Younas, Pedersen, *et al.*, 2020), making it a challenging task for researchers interested in conducting Mixed Methods Research to select the most relevant integration procedures. Hence, this paragraph sheds light on the underlying reasoning and decision-making process behind the utilisation of the joint display.

Justifying the use of a joint display approach is important. (Younas & Durante, 2022). The decision of using a follow up results joint display, is highlighted by the below Figure 6.1. The chosen mixed methods design intended to explain the previously obtained findings from the quantitative phase and to gather more information from the qualitative interviews to support the quantitative findings.

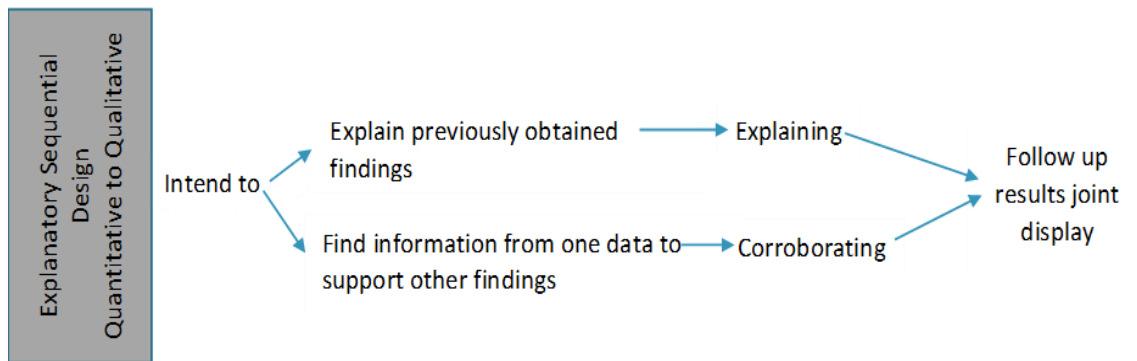


Figure 6.1 - Decision tree: Design, purposes, integration technique and joint display (modified-extracted from Younas & Durante's paper (2022, p.7)

As elucidated by Creswell and Plano Clark (2017), the interpretation of mixed methods results, as presented in the joint display, should demonstrate how the qualitative findings contribute to a more profound comprehension of the statistical results. The qualitative phase of this research, including volunteer sampling, data collection, and analysis, was fundamentally informed by, and shaped by the quantitative results. This strong connection between the two phases ensures that the qualitative aspects of the study are influenced by the quantitative findings, creating a cohesive and integrated research process. Selecting a joint display approach for integrating findings was useful since it provided an explanation of how the qualitative findings aid in the interpretation and understanding of the quantitative results.

One issue raised by experts (Creswell and Plano Clark, 2017) is whether further analysis should be conducted, incorporating the integrated component. However, solely adding that component would contradict the fundamental logic of an explanatory sequential design. Simply comparing the two phases aligns more with the convergent design approach, whereas the intention of this research design is to delve deeper into specific quantitative results by utilising qualitative findings to offer additional insights and explanations. Nevertheless, this research successfully followed the aims of the explanatory sequential design while also providing additional insight into whether the qualitative and quantitative results were discordant or congruent, for future research. The

last column on the right of the joint display provides a comprehensive illustration of this additional information and offers an explanation of the findings, thereby enhancing the depth of the integration process.

### **6.3 Intent of Integration at Interpretation Level**

The purposeful act to interconnect diverse methods of data collection, analysis, and comparing the results is referred to as the “intention of integration” (Fetters,2019). As highlighted earlier, a joint display will be used to explain objective one with the follow-up findings of objective three, and objective two, with the follow-up findings of objective four.

#### **6.3.1 Joint Display: Objective One+Three**

Objective one was to quantify the prevalence of vicarious trauma and associated risks and protective factors of VT among nurses who work in addiction services. This objective is supported by the findings from the qualitative phase two (objective three): to explore nurses’ experiences of vicarious trauma and their perceptions of protective factors for vicarious trauma. The following joint displays will elucidate how the qualitative findings helped to explain the quantitative results.

To enhance readability, the aforementioned objective has been segmented into three sections, aligning with the division that was adopted during the data analysis of the quantitative phase one:

- 1- Prevalence of VT among nurses who work in addiction services.
- 2- Associated Risks Factors of VT among nurses who work in addiction services.
- 3- Associated Protective Factors of VT among nurses who work in addiction services.

Table 6.1 - Objective One: Prevalence of VT among nurses who work in addiction services (QUANT. PHASE)

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p>88.43% (95% CI [82.26 to 92.65]) of nurses scored moderate/high risk of developing VT.</p>	<p>THEME ONE: Positive Growth Associated with VT.</p> <p>THEME FIVE: The rise of the Addiction Nurse.</p>	<p>The participants reported a notable absence of burden and VT while working with trauma-affected individuals. They did not experience personal limits or reach a point of exhaustion. However, they reported “<i>to be human</i>” aspect of being consistently exposed to patient trauma and acknowledged the potential risk for exhaustion. The participants in the second qualitative phase demonstrated resilience and strong coping mechanisms, which may explain the divergent outcomes between the quantitative and qualitative results. The qualitative findings shed light on the high degree of patient trauma nurses are exposed to and the occupational hazard of exhaustion. It is important to note that vicarious trauma is not inevitable for all nurses, as participants who initially scored high on the risk of vicarious trauma in the first quantitative phase might have chosen not to participate in the second qualitative phase. Their involvement in the study’s second phase was self-selected. Nurses also expressed the intense sense of appreciation and purpose in working with people in addiction services as Fiadh mentioned: <i>people with addiction... because that trauma, they don't have that trust. When you do build that trust, you get such a turnout of that.</i>” (FIADH, Pos. 82).</p>	<p><b>Discordant</b></p> <p>During the interviews, the participants consistently displayed and reported high levels of positive growth while working with traumatised patients. Their resilience and strong coping mechanisms were prominent and notable throughout the interview. Therefore, Phase Two findings are discordant to Phase one.</p>

Table 6.2 - Objective One: Associated Risks Factors of VT among nurses who work in addiction services (QUANT PHASE)

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p><b>AGE</b></p> <p>&lt;36 years old = highest level of moderate/ high risk levels of VT (97.4%) (Sig. .060)</p>	<p>THEME 2: Recognising Negative Consequences of VT</p>	<p>In the second phase of the research, five participants under the age of 36 (Pedro, Santiago, Sine, Aoife, and Roisin) were interviewed. Pedro initially considered himself vulnerable to VT, but now feels that <i>“nothing can shock me anymore”</i>. Santiago never felt at high risk for VT and feels <i>“much happier now”</i>. Aoife described the sink or swim nature of working with addiction, highlighting the need to cope and the challenge of not reaching her limit. The majority displayed strong coping mechanisms and compassion. Roisin mentioned feeling desensitised over time.</p>	<p><b>Discordant</b></p> <p>Overall, younger nurses did not appear to be more vulnerable to VT.</p>
<p><b>YEARS OF EXPERIENCE:</b></p> <p>&lt;12 months of experience = lower prevalence of vicarious trauma (85.7% moderate to high VT)</p>	<p>THEME 2: Recognising negative consequences of VT</p>	<p>Two participants had less than one year of experience, with Tiago expressing increased happiness since working in addiction services. Among the participants with less than seven years of experience but more than one year, Pedro felt tired due to increased workload during the pandemic and frustration with the support system, while Patrick acknowledged differences in energy absorption. Sine demonstrated strong coping strategies; however, she often questioned the possibility of reaching her limit in the future, stating, <i>“(…) I wonder if that day will ever come.”</i></p>	<p><b>Congruent</b></p> <p>The findings from the qualitative phase align with those of phase one. Nurses with less than one year of experience of working in the addiction field expressed happiness, while nurses with 1 to 7 years of experience reported feeling desensitised and fatigued.</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
1 to 7 years of experience = higher risk (93.5% moderate to high VT). (Sig. .660)		Roisin mentioned desensitization. James had extensive experience in social care but limited nursing experience.	
<b><u>CURRENT POSITION</u></b> Significant statistical correlation between Current Position and VT – (Sig. .026)	THEME 2: Recognising negative consequences of VT.  THEME 3: The role of leadership  THEME 4: What kind of support is required?	The study participants included an equal representation of nurses working as staff nurses and those occupying managerial positions. Both groups exhibited similar coping mechanisms and apparent risk of developing VT. Interestingly, none of the participants specifically identified their working position as a risk factor or as a coping mechanism for VT. However, nurses in higher hierarchical positions provided valuable insights regarding the potential protective effects of leadership in mitigating the risk of VT development.	<b>Discordant</b> In general, the findings of the interviews suggest that the work position of the nurses did not emerge as a significant risk factor for VT. However, it is worth noting that nurses in managerial positions may have the same exposure to traumatised patients as staff nurses, concomitant with the inherent stress associated with their professional roles. This observation aligns with the quantitative results indicating that nurses occupying roles such as CNM or DoN are significantly more likely to developing VT.
<b><u>EDUCATION</u></b> Diploma or Degree (70.5% of	THEME 2: Recognising negative	Of the participants, seven held postgraduate degrees, while eight had nursing degrees. Education emerged as a coping mechanism against VT, with a focus on its	<b>Congruent</b>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p>participant scored moderate/high Master/ PhD (29.5% of participant scored moderate/high) higher education= lower VT scores (Sig. .329)</p>	<p>consequences of VT</p>	<p>importance in minimising VT occurrence. Higher education was prevalent among nurses in addiction services. Participants recognised the value of education in meeting job demands and reducing VT risk. As one participant articulated, "(...) <i>that was actually the reason for me to go back to college (...) ... at that point, I was offering lots of support (...), but I felt stuck - I felt that I have nothing left to offer.</i>"</p>	<p>The results are consistent, as the interviewed nurses indicated that they use education as a coping mechanism, which suggests a lack of a clear risk factor.</p>
<p><b><u>GENDER:</u></b> Male nurses= higher prevalence of moderate to high vicarious trauma scores (90.2%) compared to female nurses= 87.7% (Sig. .672)</p>	<p>THEME 2: Recognising negative consequences of VT</p>	<p>The second qualitative phase included eight male and seven female nurses. All of them responded to the questions regarding VT and its impact on them in a similar manner, thereby rendering the comparison void. There was no discernible difference between the genders in terms of their resilience.</p>	<p><b>N/A</b> Verifying the quantitative results regarding gender-related VT risk was challenging due to participants' lack of specific factors aligning with or contradicting these results. Within the scope of this research's topic, the literature review, and quantitative findings, indicate that there is no discernible gender-based differences among the risk factors associated with vicarious trauma. As such, investigating gender-related inquiries</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
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within this context does not yield substantial evidence to suggest that one gender is more susceptible than the other to its effects

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Table 6.3- Objective One: Associated Protective Factors of VT among nurses who work in addiction services.

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p><b><u>MINDFULNESS</u></b>                      Frequency: 84.4% of nurses use it occasionally or never.</p> <p>No statistically significant correlation between Mindfulness and the risk of developing VT: (sig. .530)</p>	<p>THEME 2:                      Recognising negative consequences of VT</p>	<p>During the interviews, the nurses acknowledged the presence of various effective coping mechanisms. However, it is worth noting that none of the participants interviewed during phase two specifically mentioned mindfulness as one of those coping mechanisms. This is explained later in the meta-interference chapter.</p>	<p><b>Congruent</b></p> <p>The quantitative phase of the study revealed a low rate of nurses who reported using mindfulness as a coping mechanism. This finding aligns with the absence of mentions of mindfulness by the nurses interviewed during phase two of the study.</p>
<p><b><u>BOUNDARIES</u></b>                      Frequency: 39.2% Occasionally and 50.3% always.</p> <p>No statistically significant correlation between Boundaries and the risk of developing VT: (Sig. .978)</p>	<p>THEME 1: Positive Growth Associated with VT</p> <p>THEME 2:                      Recognising negative consequences of VT</p>	<p>Several nurses agreed that possessing good boundaries was one of the major qualities for working with people in addiction. "(...) <i>know your boundaries</i>" and "(...) <i>being able to say no</i>" (SUSAN, Pos. 65) were often mentioned by the nurses. Setting limits as a form of boundaries was also mentioned by Anneke: "<i>I'm very good in setting limits (...)</i>" (ANNEKE, Pos. 50).</p>	<p><b>Congruent</b></p> <p>The nurses interviewed during the qualitative phase confirmed that maintaining strong boundaries is one of the primary coping mechanisms used. This finding aligns with the results obtained in the first quantitative phase of the study, where the importance of strong boundaries as a coping mechanism was measured.</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p><b><u>DETACHMENT</u></b> Frequency: 20.3% use it occasionally and 28.7% never.</p> <p>No statistically significant correlation between detachment and the risk of developing VT: (Sig. .560)</p>	<p>THEME 2: Recognising negative consequences of VT</p>	<p>Nurses mentioned that working in addiction services can be challenging as they need to separate themselves from the difficulties faced by those individuals to avoid personalising their issues. One participant mentioned that one of the ways he is coping is to <i>“turn off the nurse in me”</i> (SANTIAGO, Pos. 382).</p>	<p><b>Congruent</b></p> <p>The qualitative findings are in alignment with the quantitative findings</p>
<p><b><u>SELF-CARE</u></b> 8.4% never and 91.6% always or occasionally</p> <p>No statistically significant correlation between self-care and the risk of developing VT: (Sig. .978)</p>	<p>THEME 1: Positive Growth Associated with VT</p>	<p>None of the participants explicitly mentioned the term self-care, but several referred to activities that closely resemble self-care practices, such as engaging in physical exercise <i>“I go for a run”</i> (JOHN, Pos. 237), taking a personal day off from work (SINE, Pos. 166; SUSAN, Pos. 133), or taking a break (JAMES, Pos. 58) or doing relaxation.</p>	<p><b>Discordant</b></p> <p>Interestingly, despite self-care being highlighted as one of the most commonly used coping mechanisms in the quantitative results, none of the 15 participants in the qualitative phase expressed using the term self-care as a coping mechanism.</p>
<p><b><u>SUPERVISION</u></b> 40.8%, never and 38.7% occasionally.</p>	<p>THEME 4: What kind of support is required?</p>	<p>Nurses reported a lack of supervision and support from their organisational leaders <i>“There just really isn't uhm- supervision available for most nurses.”</i> (FIONN, Pos. 228).</p>	<p><b>Congruent</b></p> <p>Interviewed nurses confirmed a lack of supervision, that was measured in quantitative phase one.</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p>No statistically significant correlation between supervision and the risk of developing VT: (Sig. .552)</p>			
<p><b><u>PEER SUPPORT</u></b> 54.2% always and 14.1% never.</p> <p>No statistically significant correlation between peer support and the risk of developing VT: (Sig..245)</p>	<p>THEME 3: The role of leadership</p> <p>THEME 4: What kind of support is required?</p>	<p>Nurses consistently emphasised the significance of peer support as a prominent coping mechanism. This sentiment was echoed multiple times by various participants, as evidenced by statements such as, "<i>I actually look for help from other nurses...</i>" (JOHN, Pos. 106), "<i>I use my co-workers as well when I'm in doubt about something,</i>" and "<i>I talk to them a lot</i>" (SINE, Pos. 166 and 178). Additionally, Roisin also highlighted the importance of peer support, stating, "<i>I think as nurses, we're very good to chat with each other on it, and I think that our nurses' colleagues are a great support to each other</i>"(ROISIN, Pos. 123).</p>	<p><b>Congruent</b></p> <p>Peer support emerged as a frequently mentioned theme during the qualitative interviews, thus corroborating the findings obtained from the quantitative analysis. The consistent emphasis on the importance of peer support underscores its significant role in coping mechanisms reported by the participants.</p>
<p><b><u>HEALTHY LIFESTYLE</u></b> 59% always and 3.8% never</p>	<p>THEME 1: Positive Growth Associated with VT</p>	<p>Apart from two participants who mentioned engaging in physical activities such as running (JOHN, Pos. 237) and cycling (SUSAN, Pos. 282), no other individuals reported incorporating a</p>	<p><b>Discordant</b></p> <p>It is possible that the direct question in the questionnaire survey regarding coping mechanisms specifically highlighted the</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
No statistically significant correlation between healthy lifestyle and the risk of developing VT: (Sig. .119)	THEME 2: Recognising negative consequences of VT.	healthy lifestyle as a coping mechanism to manage the demands of their job.	popularity of healthy lifestyle choices as coping mechanisms. However, when participants were asked to freely discuss their coping mechanisms during the interviews, they did not mention any form of healthy lifestyle practices.
<p><b>EDUCATION</b> 53.8% always and 9.1% never</p> <p>No statistically significant correlation between education and the risk of developing VT: (Sig. .616)</p>	<p>THEME 1: Positive Growth Associated with VT</p> <p>THEME 2: Recognising negative consequences of VT.</p> <p>THEME 3: The role of leadership</p> <p>THEME 4: What kind of support is required?</p>	<p>Education and training emerged as crucial sources of support that managers should offer to help nurses cope with the challenges of their work and mitigate the risk of vicarious trauma. The majority of nurses expressed a preference for education as a coping mechanism. This is supported by the fact that seven participants in qualitative phase two held postgraduate degrees, indicating their commitment to ongoing learning and professional development. During discussions about the role of organisational leadership and VT, the importance of continuous education and training was also mentioned. The participants recognised the value of ongoing learning and professional development in managing the effects of VT and emphasised the role of organisational support in providing such opportunities.</p>	<p><b>Congruent</b></p> <p>This finding underscores the significance of continuous education as a potential coping mechanism and highlights the importance of distributed leadership within the organisation.</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p><b><u>SOCIAL SUPPORT</u></b> 67.6%, always 9.0% never</p> <p>No statistically significant correlation between social support and the risk of developing VT: (Sig. .937)</p>	<p>THEME 4: What kind of support is required?</p>	<p>The majority of nurses recognised and highlighted the importance of social support, specifically from their family and friends, as part of their coping process. They emphasised the pivotal function that personal relationships play in offering emotional support, empathy, and a much-needed break from the professional challenges they encounter. By confiding in and seeking support from their loved ones, nurses are able to find solace and resilience to effectively navigate the demands of their profession.</p>	<p><b>Congruent</b></p> <p>The qualitative results support the quantitative findings, as the nurses acknowledged the crucial role of social support from family and friends as part of finding comfort, empathy, and respite from the challenges of their profession, thus enabling them to effectively cope and persevere.</p>

### **6.3.2 Joint Display: Objective Two+Four**

Objective Two was to measure the association between leadership and the occurrence of vicarious trauma among nurses working in addiction services. This objective is supported by the findings of objective four (which was explored in the qualitative part of this research): to determine nurses' views about leadership and its role in minimising vicarious trauma. The following joint display will elucidate how the qualitative findings helped to explain the results for objective two.

The second objective involved the utilisation of two scales, namely the Vicarious Trauma-Organisational Readiness Guide (VT-ORG) scale, and the vicarious trauma scale (VTS) total score, to assess the VT readiness of the organisation. The VT-ORG scale encompasses 62 questions, categorically distributed across five domains of organisational health, encompassing Leadership and Mission, Management and Supervision, Employee Empowerment and Work Environment, Training and Professional Development, and Staff Health and Wellness.

Mean scores were derived for each area: mean scores below 3.5 were indicative of weaknesses in addressing vicarious trauma (please see chapter 4 – Quantitative Findings). In displays on the following pages, the left column "Quantitative Results," the distinct areas are presented alongside their corresponding mean scores. Additionally, the quantitative statistical findings regarding the percentage of risk for nurses of developing vicarious trauma in relation to weak and strong organisational leadership are illustrated. For further reference, Appendix 16 highlights each sentence pertaining to the areas of VT-ORG (Vicarious Trauma in Organisations) that have been identified as having a significant statistical correlation with nurses who obtained higher scores on the vicarious trauma scale in the quantitative survey conducted during Phase One.

Table 6.4 -Objective Two: Association between leadership and the occurrence of vicarious trauma

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
<p><b>AREA ONE- Leadership and Mission</b> Mean: 3.3 (SD.877)</p> <p>No statistical association between Area One and VT: (Sig. .922)</p>	<p>THEME 1: Positive Growth Associated with VT</p> <p>THEME 3: The role of leadership</p> <p>THEME 4: What kind of support is required?</p>	<p>Fourteen out of fifteen interviewed nurses highlighted that their organisations weren't proactively addressing vicarious trauma. Many of the nurses didn't even know of the existence of this phenomenon before taking part in this research. This proves again that organisations are not making nurses aware of this risk, and therefore put them in danger. Also, positive communication with leaders and managers was considered by nurses as essential: "(...) <i>communication is really important, because then it makes them (nurses) feel less alone. If there is a challenge.</i>" (AOIFE, Pos. 162). Nurses acknowledged the vital role of leadership and management in organisational support. They emphasised the importance of effective leadership in fostering a nurturing work environment where nurses feel valued, heard, and supported. However, some participants expressed disappointment in the absence of robust leadership and management practices within their organisations, which intensified the current lack of support.</p>	<p><b>Congruent</b> The low scores obtained in the quantitative survey align with the views expressed by the interviewed nurses regarding leadership and the mission of their employing organisations.</p>
<p><b>AREA TWO- Management and Supervision</b> Mean: 2.5 (SD.704)</p>	<p>THEME 3: The role of leadership</p> <p>THEME 4: What kind of support is required?</p>	<p>Nurses indicated a lack of awareness regarding the risks associated with vicarious trauma, both on their part and within the organisation. Additionally, they emphasised the absence of debriefing sessions and supervision, specifically referring to the lack of regular meetings with managers. One</p>	<p><b>Congruent</b> The qualitative findings are consistent with and provide an explanation for the quantitative results. The infrequent meetings with managers and the organisation's lack of awareness</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
Statistical association between Area two and VT: (Sig. .044)		nurse expressed, "(...) <i>the organisation itself didn't value our trauma...</i> " (SANTIAGO, Pos. 358).	regarding VT prevent nurses from discussing the topic and raising awareness about it. Consequently, these factors contribute to the alignment between the quantitative and qualitative findings
<p><b>AREA THREE- Employee Empowerment and Work Environment</b> Mean: 3.1 (SD.79216)</p> <p>No statistical association between Area Three and VT: (Sig. .343)</p>	<p>THEME 2: Recognising negative consequences of VT.</p> <p>THEME 3: The role of leadership</p> <p>THEME 4: What kind of support is required?</p>	<p>Once again, the majority of the interviewed nurses emphasised the lack of support from their organisations, leading to feelings of undervaluation and lack of support. Nursing empowerment was identified as a means to effectively utilise leadership skills. Roisin expressed that leadership could aid in the development of nurses to reach their full potential: "<i>if we help that person to] develop as a nurse and develop their skills - and develop into the [best] nurse that they can be.</i>" (ROISIN, Pos. 213). The participants emphasised that a healthy work environment is characterised by several key elements. These include robust peer support, empowerment of nurses, and the absence of negative team practices.</p>	<p><b>Congruent</b></p> <p>Nurses reported a lack of support and feeling under-valued by their employing organisations. It is noteworthy that this empowerment was predominantly highlighted as originating from nurse-to-nurse interactions, rather than being fostered by the organisations themselves.</p>
<p><b>AREA FOUR- Training and Professional Development</b> Mean: 3.2 (SD .685)</p>	<p>THEME 2: Recognising negative consequences of VT.</p> <p>THEME 4: What kind of support is required?</p>	<p>The nurses who took part in the qualitative Phase Two study emphasised the importance of education and training as essential to their coping mechanisms and to dealing effectively with the demands of their jobs. However, some nurses expressed the view that their organisations did not adequately support them in organising relevant training and further education opportunities.</p>	<p><b>Incongruous</b></p> <p>In this area, an incongruity exists, which does not inherently signify a state of conflict or disagreement. Nurses, while collectively acknowledging a deficiency in their educational background, are in</p>

Quantitative Results	Qualitative Themes Explaining Quantitative Results	How Qualitative Findings Helped to Explain Quantitative Results	Conclusion
No statistical association between Area Four and VT: (Sig. .086)		It is worth noting that only a small number of participants, specifically Patrick (Pos. 198), Roisin (Pos. 187), and James (Pos. 116), acknowledged their organisations for providing support in terms of training and education. These three participants expressed gratitude for the opportunities afforded by their organisations to enhance their knowledge and skills in the areas of vicarious trauma and self-care.	alignment with the quantitative findings. However, it is worth noting that a subset of nurses (specifically three participants) reported experiencing substantial support from their respective organisations in terms of training and education.
<b>AREA FIVE- Staff Health and Wellness</b> Mean: 2.6 (SD.741)  No statistical association between Area Five and VT: (Sig. .412)	THEME 1: Positive Growth Associated with VT  THEME 2: Recognising negative consequences of VT.  THEME 4: What kind of support is required?	All nurses interviewed acknowledged the importance of coping mechanisms for their personal well-being, as a means to shield themselves from the taxing nature of their professional role. Nevertheless, they reached a consensus that organisations are deficient in providing adequate support for their well-being and health promotion, particularly in safeguarding against VT. Nurses also highlighted how family, friends and social support is vital to them coping with working in addictions services. Once again, during the second phase of the study, it became evident that both nurses and organisations lacked awareness regarding the risks associated with VT and its existence.	<b>Congruent</b> The qualitative findings align with the quantitative data, as the nurses consistently reported a dearth of support in the realm of health and wellness promotion from their organisations.

## **6.4 Meta-Inferences Derived from Integrated Findings**

The results from the integrated research findings confirm and consolidate the evidence regarding the risk of developing VT among nurses working in addiction services. Additionally, the study highlights the inadequacy of coping mechanisms and identifies clear risk factors associated with VT. In addition, it sheds light on the lack of awareness regarding the existence of VT and a lack of organisational leadership support. It also underscores the pivotal role played by leadership in addressing this issue.

### **6.4.1 Integrated findings on the prevalence of VT and nurses' positive growth**

The reviewed literature (McCann *et al.*, 1990; Robinson *et al.*, 2003; Molnar *et al.*, 2017; Newman, 2019) indicates a significant risk of VT among professionals exposed to patients' trauma. The integration of the study's findings indicates both agreement with the existing literature but also a significant display of resilience among nurses working in addiction services. The first objective of this study was to quantify the prevalence of VT among nurses working in addiction services. The results indicated that 88.43% of nurses scored at a moderate to high risk of developing VT. The qualitative findings, however, presented a divergence in perspectives, as nurses reported experiencing positive personal growth in association with VT and demonstrated a considerable level of resilience.

It is important to note that possessing strong resilience and experiencing positive growth does not necessarily indicate a lack of risk for developing vicarious trauma as prior literature has identified positive outcomes resulting from vicarious exposure to clients' trauma (Tedeschi & Calhoun, 2004; Cohen and Collens, 2013; Tsirimokou *et al.*, 2023). The findings of this research suggest that nurses who work in addiction services may exhibit both a high risk of developing VT and simultaneous high levels of resilience and personal growth.

### **6.4.2 Integrated findings on risk factors for nurses who work in addiction services.**

The existing literature (Brick, 2001; Woodard Meyers & Cornille, 2002; Knight, 2013; Sansbury, *et al.* 2014) also presents evidence suggesting that certain risk factors may potentially increase the likelihood of experiencing vicarious trauma. However, it should

be noted that VT is not universally experienced by all individuals who are vicariously exposed to traumatic events (Sinclair & Hamill, 2007). The present study also observed that some of the risk factors commonly mentioned in the literature were inconsistent with the integrated findings of this research, while others were in agreement. The second part of the first objective focused on identifying the associated risk factors of vicarious trauma among nurses working in addiction services. The literature points to younger professionals being at higher risk of developing vicarious trauma (Pearlman & Mac Ian, 1995; Bell *et al.*, 2003). However, the integrated findings from this study showed some discordance. Although the quantitative results indicated a slightly higher predisposition to VT among younger individuals, this finding was not statistically significant and was not confirmed by the qualitative part of the study.

In addition, the literature examined in this study revealed a lack of agreement regarding the impact of professional experience as a risk factor for individuals working with traumatised patients. According to Kadambi and Truscott (2004), certain studies suggest that entry-level professionals face a higher susceptibility of developing vicarious trauma and secondary traumatic stress. Conversely, Ben-Porat (2015) proposes that even experienced professionals may encounter challenges in this regard.

The integrated findings of this study elucidate several key insights. Consistent with previous research (Lerias & Byrne, 2003; Kadambi & Truscott, 2004), healthcare professional, in this case nurses, with more experience (more than one year and less than 7 years) are identified as being at a higher risk of experiencing VT, often expressing feelings of desensitisation and fatigue in response to traumatic events encountered in their work. Hernández *et al.* (2010) underscore the notion that vicarious trauma is a cumulative phenomenon resulting from prolonged exposure to traumatised patients. In essence, the duration of exposure to indirect trauma, and consequently, the length of experience working with trauma, is posited as a significant risk factor for developing vicarious trauma. However, conversely, nurses with less than one year and more than seven years of experience appear to exhibit lower susceptibility to VT, potentially attributed to limited exposure and developed coping mechanisms, respectively. The literature supports the idea that vicarious trauma is a cumulative effect that arises from

prolonged exposure to traumatised clients (Hernández *et al.*, 2010). With limited exposure, these nurses may not have reached a threshold where the cumulative effects significantly impact their well-being. On the other hand, nurses with over seven years of experience appear to be at lower risk due to their developed coping mechanisms. Over the years, they likely have acquired unique and individualised strategies to protect themselves from the emotional strains of their work. These coping mechanisms may help them maintain emotional resilience and reduce the impact of vicarious trauma on their overall well-being. The combination of these two distinct patterns- lower risk of VT in both the least experienced and most experienced nurses- underscores the importance of understanding the intricate interplay between nurses' exposure to distressing materials and their coping strategies, in the context of vicarious trauma. These findings together with findings from relevant literature were used to develop the guidelines presented in the next chapter.

A discordance in the literature was highlighted also when indicating gender as a risk factor, as numerous studies have explored the greater likelihood of female healthcare professionals developing indirect trauma (Brick, 2001; Woodard Meyers & Cornille, 2002; Knight, 2013; Sansbury *et al.*, 2014). In other studies (Robinson *et al.*, 2003) it has been reported that males are more likely to have higher vicarious trauma scores. However, the integrated findings from this study did not provide any specific evidence to support the belief that either female or male nurses could be potentially more inclined or vulnerable to developing VT. Based on the results of this study, it would be reasonable to assume that both genders are at the same level of risk when it comes to experiencing vicarious trauma.

The quantitative analysis revealed a significant association between nurses' occupational roles and their susceptibility to experiencing vicarious trauma. Specifically, individuals in elevated positions, such as Clinical Nurse Managers and Assistant/Directors of Nursing, demonstrated a heightened vulnerability compared to staff nurses. However, this correlation was not evident in the qualitative findings, where participants exhibited resilience irrespective of their roles. While this aspect wasn't highlighted as a risk factor in the literature, drawing upon McCann and Pearlman (1990) and Brockhouse *et al.*

(2011), it becomes apparent that VT is a cumulative effect over time. Nurses in higher positions, being more experienced and likely exposed to trauma more frequently, alongside bearing administrative responsibilities, may face amplified challenges in managing VT.

In the quantitative phase, another analysed risk factor was the country of origin. Only one nurse from the Netherlands participated in the qualitative phase. Despite demonstrating remarkable resilience and strength in working within addiction services, her level of resilience appeared comparable to that of the other participants.

#### **6.4.3 Integrated findings on nurses' coping mechanism against VT.**

The second part of the first objective involved exploring the protective factors associated with VT among nurses working in addiction services. Similar to the exploration of risk factors, the literature review brought to light common coping mechanisms (Pearlman, 1999; Figley, 2002; Robinson *et al.*, 2003; Sonnentag & Bayer, 2005; Maier, 2011; Rice & Warland, 2013; Knight, 2013; Tierney, 2016; Ludick & Figley, 2017; Manning-Jones *et al.*, 2017), which were further examined in this study. The integrative findings revealed that nurses in addiction services rely on certain coping strategies, particularly peer support, social support, education, boundaries, and detachment.

Peer support emerged as a crucial element for nurses who participated in this research, as they preferred seeking assistance from fellow nurses rather than managers during challenging times. Additionally, the significance of personal connections to family and friends was evident in the form of social support for nurses in their coping process. Notably, this aspect could be considered part of the detachment coping mechanism. During qualitative interviews, participants defined detachment as the ability to switch off their nursing role and be present with their families, thereby distancing themselves emotionally from the challenges faced at their addiction service workplace.

Understanding this concept of detachment is essential, as it has been previously associated with risk factors, such as countertransference, which can trigger emotional responses like anger, grief, detachment, and rescue fantasies among healthcare

professionals, including nurses (Pearlman & Saakvitne, 1995; Peled-Avram, 2017). Previous studies have emphasised the importance of detachment in preventing vicarious trauma (Figley, 2002; Sonnentag & Bayer, 2005).

In the context of recovering from work-related stressors, Sonnentag and Bayer (2005) emphasise the significance of psychological detachment, which involves mentally disengaging from work environments. This detachment serves as a safeguard for internal resources such as energy and confidence (Sonnentag & Fritz, 2007). Despite evidence supporting the protective nature of psychological detachment (Etzion et al., 1998; Sonnentag & Fritz, 2007), its application to nurses working in addiction services may diverge. This research nurses emphasised detachment not from their emotions but from their nursing role, as they recognised that forming empathetic bonds with patients is fundamental to their care. This approach aligns with the underlying philosophy of the nursing profession (Straughair, 2013), which prioritises compassionate and empathetic patient interactions as essential components of quality nursing practice. The empathetic connection between nurses and their patients is an essential aspect of compassionate care in addiction services. It allows nurses to understand the unique challenges and emotions faced by their patients, fostering trust and rapport. Through this association, nurses can provide non-judgmental support, empathy, and encouragement. These qualities were highlighted during the interviews as essential components in the context of addiction services, which collectively define the role of an "addiction nurse."

The proposed guidelines underscore the importance of maintaining boundaries while acknowledging the value of compassionate care in addiction services. Moreover, educational support is vital for nurses to effectively manage vicarious trauma and offer trauma-informed care. Organisations should prioritise enhancing nurses' understanding of addiction and trauma to bolster patient support and safeguard nurses' well-being. A more detailed paragraph on the implication of this research to trauma-informed care can be read in chapter seven, "Implication of this Study to Trauma-Informed Care Approach".

#### **6.4.4 Integrated findings on leadership role and VT and nurses' experiences of leadership**

Objective two, pertaining to the investigation of the relationship between leadership and the occurrence of vicarious trauma, has been effectively fulfilled through the integration of this research. The literature review underscores the crucial significance of leadership in fostering a supportive and well-structured work environment that effectively mitigates the potential development of vicarious trauma (Pearlman, 1999; Cummings, 2004; Sommer, 2008). Extensive research has indicated that mere reliance on coping mechanisms by healthcare professionals is inadequate; instead, it is incumbent upon organisational leadership to take responsibility for crafting a healthy work environment that proactively reduces the likelihood of vicarious trauma occurrences (Sommer, 2008). However, the qualitative findings have concurred with the quantitative results, accentuating the inadequate support and awareness within organisations concerning VT.

The quantitative survey encompassed an examination of five areas (Leadership and Mission, Management and Supervision, Employee Empowerment and Work Environment, Training and Professional Development, and Staff Health and Wellness) of organisational health, thereby leading to a definition of leadership centred around a boss-centric approach. Concurrently, the qualitative interviews with nurses revealed notions such as collective work, autonomy, positive communication, and teamwork. All of these concepts are closely linked to a distributed leadership model (Northouse, 2017; Curtis et al., 2021). This particular finding stands as a novelty, as no existing literature was found that explores the role of distributed leadership in the context of vicarious trauma. As emphasised by West and colleagues (2017), fostering autonomy in individuals is encouraged when organisations adopt a compassionate and collective leadership approach.

As indicated in the quantitative phase, each section of the VT-ORG revealed factors that were directly proportional to nurses' agreement or disagreement with their level of VT. The greater the consensus among nurses regarding organisational shortcomings—such as a lack of a clear mission, infrequent meetings and supervision to address trauma exposure, deficient communication on decision-making, a dearth of proactivity, insufficient salary and benefits, and inadequate training—the higher the VT risk became.

This correlation was substantiated by interviewed nurses, who, despite demonstrating remarkable resilience, expressed the belief that their organisations could enhance their performance in all these areas.

In conclusion, nurses working in addiction services currently experience a lack of support from their organisation, hindering their ability to respond autonomously to challenges. Envision the profound empowerment and advantages nurses could attain if the organisation consistently demonstrated effective leadership. The research highlights that nurses in addiction services possess elevated levels of resilience and compassion. Therefore, a transformative shift towards a more distributed leadership approach across all levels of the healthcare sector would undoubtedly yield significant benefits for these dedicated professionals.

## **6.5 Conclusions**

This chapter presented the integration of quantitative and qualitative data within a mixed methods research design. It emphasised the distinct contributions of qualitative and quantitative data and highlighted the synergistic integration through joint displays, which allowed for a comprehensive understanding of the findings from the present study.

In terms of the interpretation level of integration, the chapter presented joint displays for objectives one and three, and objectives two and four. Objective one and three focused on prevalence of vicarious trauma, associated risks, and protective factors among nurses in addiction services. Also, it explored their experiences and perceptions of protective factors for VT. The joint displays showcased how qualitative findings helped explain the quantitative results, highlighting congruent or discordant findings between the two methods. Objective two and four focused on the association between leadership and vicarious trauma occurrence among nurses and nurses' perspectives on the role of leadership in minimising VT. The joint display illustrated how qualitative insights provided explanations for the quantitative findings relating to different areas of leadership and organisational readiness.

The overall key findings from this research were:

- Nurses working in addiction services are at a high risk of developing vicarious trauma, with 88.43% scoring at a moderate to high risk. However, the study also revealed a significant display of resilience among these nurses, as some reported positive personal growth associated with VT.

- Some of the risk factors associated with VT differed from those reported in the existing literature: nurses having 1 to 7 years of experience being at higher risk. Interestingly, both nurses with less than one year and more than seven years of experience showed a lower risk of VT, potentially due to limited exposure or the development of coping mechanisms. The study did not find any specific evidence to support the belief that either female or male nurses could be more inclined or vulnerable to developing VT.

Since all 15 nurses exhibited high levels of resilience and positive personal growth, there was a lack of congruency with the quantitative findings that nurses in higher positions are more susceptible to developing Vicarious trauma, as well as the suggestion that nurses from the Netherlands are at a lower risk of VT development.

- Nurses in addiction services relied on coping strategies such as peer support, social support, education, boundaries, and detachment, which played a crucial role in their resilience and well-being while providing compassionate care to clients facing addiction. The traditional understanding of detachment, as described in the literature, might not apply directly to nurses working with individuals facing addiction, as they form intense empathetic relationships with their vulnerable clients, which is essential for their work. Instead, the guidelines emphasise maintaining healthy boundaries between professional responsibilities and personal life to safeguard nurses' well-being while providing high-quality patient care.

- The research highlights the significant role of an appropriate more contemporary leadership approach in mitigating the occurrence of vicarious trauma among nurses working in addiction services. While existing literature emphasises the importance of leadership in creating a supportive work environment, this study's qualitative findings

revealed the potential benefits of adopting a distributed leadership model characterised by collective work, autonomy, positive communication, and teamwork. Nurses in addiction services currently face inadequate support from their organisations, hindering their ability to respond autonomously to challenges. However, a transformative shift towards a more compassionate and inclusive leadership model is suggested, which could empower nurses and yield significant benefits for their well-being and patient care. This finding is novel as it extends beyond the traditional boss-centric approach to leadership, emphasising the positive impact of compassionate and collective leadership on healthcare professionals' resilience and compassion.

In addition to elucidating the prevalence, risk factors, and protective factors of vicarious trauma (VT) among nurses in addiction services, this study has significantly contributed to the advancement of original knowledge in several key areas.

Firstly, it innovatively integrates quantitative and qualitative data within a mixed methods research design. By employing joint displays to synergistically combine qualitative insights with quantitative findings, the study presents a nuanced understanding of the complex phenomenon of VT among nurses. This methodological approach not only enhances the comprehensiveness of the research but also serves as a model for future studies seeking to bridge the gap between quantitative and qualitative methodologies in healthcare research.

Secondly, the study challenges conventional wisdom by uncovering novel insights into the risk factors associated with VT among nurses. Contrary to existing literature, which often associates higher levels of VT with certain demographic or occupational characteristics (as explained earlier), this research reveals unexpected findings, such as nurses with 1 to 7 years of experience being at higher risk, nurses from different countries in Europe have significant different levels of VT and nurses in higher position are at more risk of developing VT. This discovery underscores the importance of reevaluating and refining existing paradigms surrounding VT risk assessment, thereby enriching the discourse on preventive strategies and interventions.

Thirdly, the study sheds light on the transformative potential of contemporary leadership approaches in mitigating VT occurrence among nurses. By advocating for a shift towards a distributed leadership model characterised by collective work, autonomy, and positive communication, the research pioneers a more inclusive and compassionate leadership paradigm tailored to the unique challenges faced by healthcare professionals in addiction services. This groundbreaking insight not only underscores the critical role of leadership in fostering organisational support and resilience but also paves the way for future research and interventions aimed at cultivating healthier work environments in healthcare settings.

In conclusion, this study provides valuable insights into the prevalence, risk factors, and protective factors of VT among nurses working in addiction services. It provides a comprehensive understanding of the crucial significance of leadership in effectively addressing VT within addiction services. It highlights the necessity for the healthcare industry to redefine the concept of leadership, shifting away from a traditional managerial framework towards a more inclusive and distributed leadership approach. This evolved approach emphasises the importance of team support, collaborative efforts, and fostering positive communication practices.

The next chapter will incorporate these findings into a systematic set of guidelines. Moreover, the subsequent chapter will provide future directions for effectively managing vicarious trauma and a summary of the researcher's personal reflections.

# Chapter Seven

## Conclusions, Guidelines and Future Directions

### 7.1 Introduction to Chapter

This final chapter has three key functions. First, it summarises key findings from the research study. Second, it puts forward recommendations for future research and presents guidelines for addressing VT among nurses who work in addiction services. This chapter fulfilled objective number five – to utilise the findings derived from the study to develop evidence-based guidelines for minimising vicarious trauma among nurses working in addiction services, with a specific focus on enhancing effective leadership practices. The strengths and limitations of the research are then explained for each aspect, followed by suggestions for future research directions. A brief overview of the doctoral journey is provided, along with concluding remarks in Section 7.4.

### 7.2 Contribution of Study and Guidelines

Having achieved the aim and objectives of the study, the combined evidence strongly suggests that there is considerable potential and need for enhancing nursing practices and organisational leadership within addiction services with regard to the awareness and protection against VT. Given the essential role nurses play in the care of this vulnerable population and the prevalence of trauma among patients, resulting in a heightened risk of nurses experiencing vicarious trauma, the inadequate awareness and organisational support are matters of concern. The paucity of research concerning nurses working in addiction services and the prevalence of vicarious trauma, and the role of leadership in addressing this issue and the evident gap in support, further compound the matter and raise additional concerns. In addition to its valuable contributions to nursing practice, this research has also yielded novel insights into the realms of organisational leadership and vicarious trauma. These contributions and recommendations are highlighted under the various headings.

### **7.2.1 (a) Guidelines for Addressing VT Among Nurses who Work in Addiction Services**

This paragraph presents a set of guidelines developed from the findings of this study, and the existing literature, for nurses who work with people in addiction. These guidelines offer a structured framework for nurses working in addiction services, but with appropriate modifications and adaptability, they can be extended to other specialised areas. Given the inevitable exposure to patients' trauma in addiction-related nursing roles, the primary aim is to transform this exposure from potentially resulting in vicarious trauma to promoting vicarious post-traumatic growth (VTPTG) and resilience. Therefore, anticipating VT becomes crucial. In section 7.2.1 (b) guidelines are expanded into three dynamic dimensions, before traumatic exposure, during traumatic exposure and after. Below are the guidelines devised based on existing literature and the findings of this doctoral research at the individual level of nurses who work in addiction services.

Table 7.1. Guidelines for nurses who work in addiction services for mitigating VT.

Guideline Steps	Description
<b>1. Awareness</b>	<p>Through education, support and understanding of vicarious trauma, nurses can be proactive in safeguarding their physical and mental wellbeing in relation to vicarious trauma. From the evidence it is clear that nurses working in addiction services are at a risk of developing vicarious trauma and through knowledge and awareness, nurses can recognise early signs of vicarious trauma and emotional distress. Since vicarious trauma is an inherent occupational hazard, its potential impact is universal. Nurses must remain vigilant and recognise if they find themselves persistently ruminating on traumatic events related to patients or work even outside of their professional setting. Identifying such signs and symptoms is essential to taking appropriate measures.</p> <p>Maintain constant awareness. Nurses should be aware that vicarious trauma is always a risk when working with traumatised patients, and as a result need to have a protective plan and strategy in place.</p>
<b>2. Acknowledge Personal Risk Factors</b>	<p>While recognising the signs of vicarious trauma is the first step, alone it is not sufficient. Nurses must acknowledge that personal experiences such as trauma and bias affect the impact of vicarious trauma, and from this, identify the specific risk factors and potential countertransference issues that could make them vulnerable to VT.</p>
<b>3. Adopt Effective Coping Mechanisms</b>	<p>Nurses who work in addiction services employ diverse coping mechanisms compared to other professionals, with these strategies varying from one individual to another. Peer support is of paramount importance and should be maximised to prevent feelings of isolation. Maintaining a healthy work-life balance, planning workload to allow for breaks between exposure to traumatic materials, and mentally detaching from the nursing role when off-duty are all valuable coping strategies for nurses.</p>
<b>4. Strengthen Protective Factors</b>	<p>While recognising signs of vicarious trauma is important, having a protective plan in place needs to be continuously changed and updated in line with ever changing personal and work circumstances. This proactive approach helps ensure ongoing protection against vicarious trauma.</p>
<b>5. Promoting Leadership Improvement</b>	<p>While there needs to be an onus on the nurses taking protective steps regarding vicarious trauma, this research has highlighted a significant place for leadership. The strategic deployment of distributed leadership approach, characterised by both autonomy and adept collaboration, plays a pivotal role in fostering vicarious post-traumatic growth (VTPTG) while concurrently mitigating the adverse consequences of vicarious trauma. Alongside this, by the nurses assuming personal responsibility and accountability for one's specific area of expertise contributes to the development of collective leadership, yielding a wide range of benefits that extend beyond mere organisational efficiency and teamwork dynamics. Most significantly, this DL approach ensures the utmost welfare and well-being of patients under the care of these competent nurses.</p>

### **7.2.1 (b) A Three-Dimensional Approach in Addressing Trauma Exposure for Nurses**

In a general sense, the observation of exposure to trauma can be categorised along three distinct timelines: prior to nurses being exposed to patients' trauma, during the interaction, and subsequent to it. In order to effectively achieve the fundamental objective of minimising the consequences of vicarious trauma and facilitating the development of vicarious post-traumatic growth, it is crucial to consider all three temporal dimensions when engaging with patients who have experienced trauma (see table 7.1.2). The above guidelines have been adapted to those three dimensions.

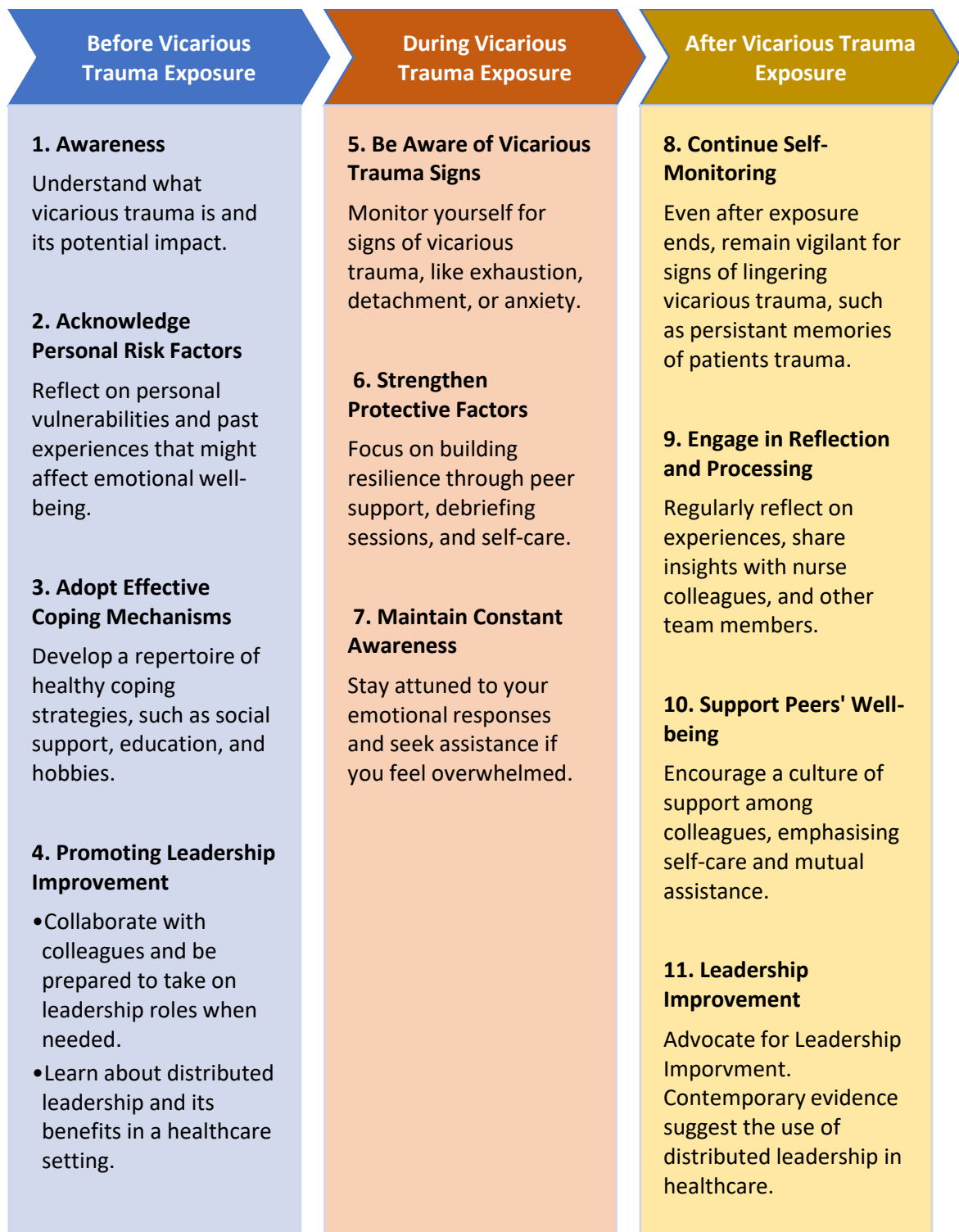


Figure 7.1- Strategies for Managing VT Exposure Across Three Temporal Phases

### 7.2.2 Contribution to Healthcare Organisations and Organisational VT Guidelines

This paragraph aims to assist and encourage organisations in helping nurses to minimise the effect of vicarious trauma with the help of the developed guidelines.

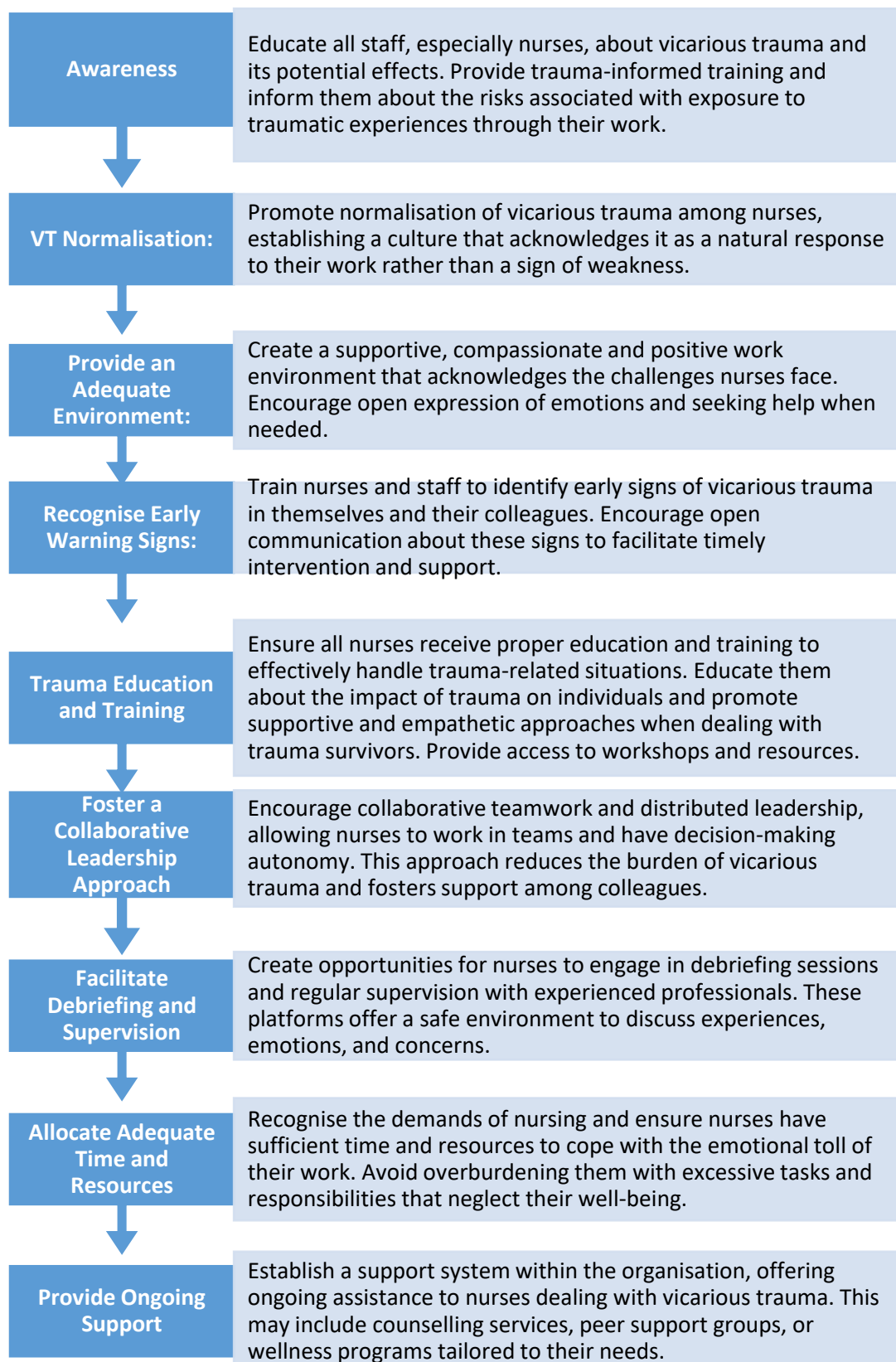


Figure 7.2 Guidelines for Healthcare Organisation for mitigating VT among nurses who work in addiction services.

By implementing these guidelines and proactively address VT, organisations can create a nurturing and supportive environment for nurses, ultimately reducing the effects of vicarious trauma and promoting overall well-being in the workplace.

### **7.3 Strengths and Limitation of the Study**

Most research studies have strengths and limitations, and the present study is no exception.

Strengths:

(a) The mixed method design employed in this research is a significant advantage. By combining quantitative and qualitative data, the study offered a more nuanced understanding of the challenges faced by European nurses working in addiction services. The quantitative data provided statistical evidence, while the qualitative data captured the nurses' personal experiences and perceptions, enriching the overall findings.

(b) A key strength of this research is the comprehensive sample it includes. By involving all nurses working in units that deal with patients struggling with addiction, the study provides a more realistic view of the challenges and experiences faced by nurses in addiction services. This approach allows for a broader representation of the nursing workforce involved in addiction care, leading to more robust conclusions.

(c) Another notable strength is the European focus of the study. By conducting research across multiple European countries, the research is better equipped to identify common trends, cultural variations, and potential best practices in addiction services. The findings are more likely to have broader applicability across diverse healthcare systems, making the study more relevant and generalisable.

(d) The incorporation of leadership as a focal component within this research has significantly enhanced its robustness and comprehensiveness. It bestowed upon this doctoral study a holistic perspective, encompassing all facets of nurses and nursing healthcare. Leadership had been identified as a crucial determinant in mitigating VT

during the preliminary literature review. The research has not only validated this initial understanding but has also underscored a notable deficiency in leadership support and awareness concerning VT.

(e) The exclusive focus on nurses who work with people in addiction in this study can be leveraged as a unique opportunity to delve deeply into their specific roles and contributions within addiction services. By concentrating on this vital group of healthcare professionals, a nuanced understanding of the impact of VT have been gained. This focused approach allowed for a thorough exploration of the nursing perspective of VT and the role of leadership, uncovering valuable insights and unique coping mechanisms that might not have been evident in a broader study encompassing various healthcare roles.

(f) Acknowledging and addressing personal bias is a critical aspect of conducting research, particularly when the researcher has a personal connection to the subject matter. As an addiction nurse embarking on this study, the researcher's firsthand experience in the field undoubtedly provided valuable insights and motivations for exploring the prevalence, risk factors, and protective factors of VT among fellow healthcare professionals. While some may perceive this personal connection as a potential source of bias, the researcher contends that it served as a strength rather than a weakness in this research endeavour. To mitigate the influence of personal bias and ensure the rigor and credibility of the research findings, several methodological strategies were employed, which are explained in previous paragraphs.

Limitations:

(a) One of the main obstacles is the lack of a clear definition for "addiction nurse." (Clancy et al, 2019). This ambiguity may lead to inconsistent participant selection and potentially include individuals who are not directly involved in caring for people in addiction. The absence of a standardised definition could introduce bias and affect the validity of the research findings.

(b) Another limitation arises from the inclusion of nurses who don't work in addiction services, but in some way care for people in addiction, such as a prison officer nurse who

deals with individuals with addiction issues within a prison setting. While their experiences are valuable, the scope of their role may differ significantly from “addiction nurses” who work in addiction services, potentially skewing the results and reducing the study's specificity to the intended target group. Also, acknowledging the self-selection bias inherent in participants transitioning to the second phase of the study is crucial. It's worth noting that nurses who voluntarily chose to participate may have been inherently more interested and willing to share their perspectives on VT and leadership.

(c) The instrument employed for data collection in the initial quantitative questionnaire survey (VTS and VT-ORG) were not originally designed exclusively for nurses, but rather for healthcare professionals who interact with patients experiencing trauma. As demonstrated by this study, nurses working in addiction services encounter distinct risk factors and coping mechanisms compared to their counterparts in other specialties. Using these questionnaires could be regarded as a limitation of this research, as the unique characteristics of nurses might have been disregarded due to the tools' lack of specialisation for the nursing context.

(d) Lastly, conducting research across multiple European countries introduces language and cultural differences that could affect data interpretation and consistency. Translating instruments and transcribing qualitative data may lead to potential loss of meaning or context, requiring additional efforts to maintain research rigor.

In conclusion, the strengths of the study clearly surpass its weaknesses, and despite these limited drawbacks, the findings have significantly contributed to the understanding of VT among nurses who work with people in addiction.

#### **7.4 Direction for Future Research and Implement Guidelines for Nurses and Healthcare Organisations**

The findings of this study highlight the potential for enhancing leadership VT approaches within healthcare organisations and fostering greater awareness of vicarious trauma among nurses, through the future implementation of the recommended guidelines. To effectively address the identified issues, the future implementation of previously reported

guidelines is paramount. However, it is crucial to initiate interventions well before nurses embark on careers in addiction services. Nursing students should be equipped with awareness of VT and empowered to adopt measures that safeguard their well-being from its impact. Consequently, tackling the issue of VT calls for a multi-faceted approach where three key levels merit attention: at a student level, at the level of practicing nurses (staff nurses, CNM, CNS etc), and healthcare organisational levels.

### **7.3.1 Enhancing Vicarious trauma Awareness at the Nursing Students Level**

Firstly, at the student level, efforts should be made to heighten awareness through educational initiatives. Informative classes, workshops, or comprehensive modules can be conducted, focusing on the application and demonstration of the guidelines developed during the study. The effectiveness of these interventions should be assessed by measuring the resulting impact on students' awareness of VT.

### **7.3.2 Enhancing Vicarious trauma Awareness at the Level of Practicing Nurses**

Secondly, at the level of practicing nurses, a concerted effort must be made to enhance awareness of VT among those who work with traumatised patients. By applying the guidelines derived from the study, nurses can be educated on risk factors and coping mechanisms associated with VT. Prevalence studies before and after the implementation of these guidelines can offer valuable insights into their effectiveness.

### **7.3.3 Enhancing Vicarious trauma Awareness at Organisational Levels**

Thirdly, at the organisational level, emphasis should be placed on fostering awareness among healthcare organisations. Creating vicarious trauma-informed organisations that proactively integrate protective strategies for nurses can be transformative. Assessing organisational readiness (with the VT-ORG scale) before and after the implementation of such measures will shed light on the effectiveness of these interventions.

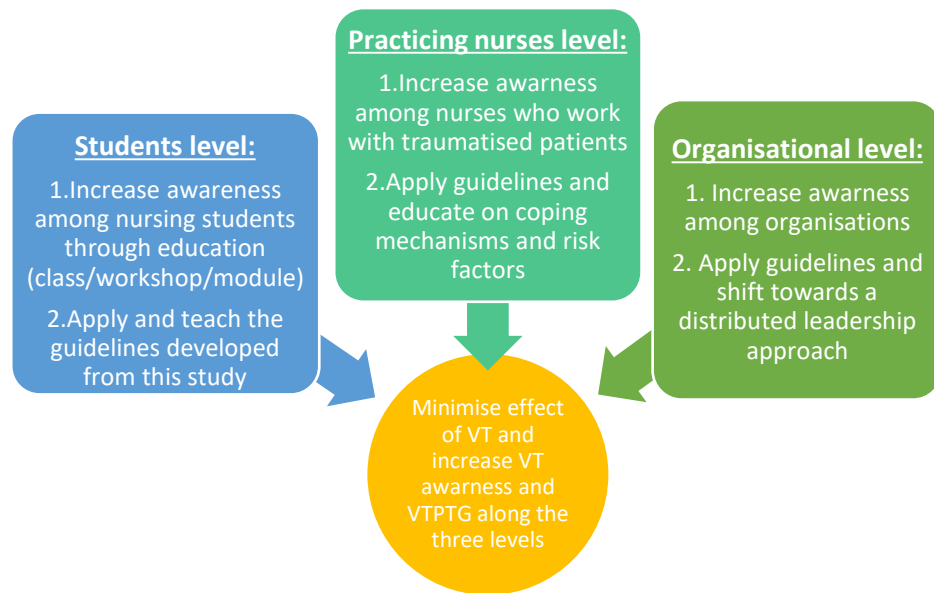


Figure 7.3 - Multi-Faceted Approach to VT at Student Levels, Practicing Nurses Levels and Organisational Levels

In conclusion, future research endeavours should concentrate on these three levels to address the identified gaps in healthcare organisations' leadership approaches and nurses' awareness of vicarious trauma. By focusing on education, guideline application, and organisational awareness, a comprehensive and sustainable approach can be devised to mitigate the impact of vicarious trauma on nurses and, ultimately, improve the quality of patient care and the well-being of healthcare professionals.

## 7.5 Implication of this Study to Trauma-Informed Care Approach

The implications of this research for the implementation of a trauma-informed care (TIC) approach within addiction services are profound and multifaceted. The study's comprehensive exploration of vicarious trauma prevalence, risk factors, protective factors, and the role of leadership could potentially offer invaluable insights for shaping trauma-informed practices tailored to the needs of nurses and patients in addiction services.

Firstly, the identification of nurses in addiction services as being at a high risk of developing VT, coupled with the recognition of their resilience and potential for post-

traumatic growth, underscores the importance of integrating trauma-informed principles into every aspect of care delivery. By acknowledging and addressing the psychological impact of trauma on individuals, a trauma-informed service can create an environment that prioritises safety, trust, and empowerment for both staff and patients.

Furthermore, the study's finding of nuanced risk factors, such as the association between nursing experience and VT risk, challenges conventional assumptions and highlights the need for tailored interventions. By incorporating these findings into trauma-informed guidelines, healthcare organisations can develop targeted strategies to support nurses at different career stages, bolstering their resilience and mitigating VT risk.

Moreover, the study's insights into nurses' coping strategies, such as peer support, social support, education, boundaries, and detachment, provide practical guidance for integrating trauma-informed practices into daily routines. By promoting self-care, establishing healthy boundaries, and fostering a supportive work environment, healthcare organisations can enhance staff well-being and resilience while promoting compassionate care provision. This aligns with the principle of collaboration in TIC, where there's a recognition of the importance of support networks (Lambert & Gill-Emerson, 2017). By seeking assistance from fellow nurses, individuals create a sense of safety and trust within the workplace, fostering a collaborative environment essential for both staff and clients.

The implications of this research extend beyond individual nursing practices to encompass organisational leadership within addiction services and its alignment with trauma-informed care principles (Lambert & Gill-Emerson, 2017). The study's emphasis on the transformative potential of leadership in mitigating vicarious trauma occurrence among nurses underscores the critical role of organisational leaders in fostering a trauma-informed culture. By embracing a distributed leadership model characterised by collective work, autonomy, and positive communication, organisational leaders can create an environment conducive to staff well-being and resilience. Distributed leadership models, characterised by autonomy and collective decision-making, empower nurses to respond autonomously to challenges. This aligns with the TIC principle of empowerment and

choice, where individuals' strengths are recognized and validated (Lambert & Gill-Emerson, 2017) By empowering nurses to take ownership of their work and contribute to decision-making processes, leaders foster a sense of empowerment that enhances resilience and reduces the risk of VT. Additionally, the study's identification of organisational readiness as a key factor influencing nurses' ability to respond autonomously to challenges underscores the importance of leadership in driving organisational change. By demonstrating a commitment to becoming trauma-informed, implementing universal screening processes, providing staff training, and reviewing policies and procedures through a trauma-informed lens, organisational leaders can create an infrastructure that supports trauma-informed care delivery. Organisational leadership is responsible for prioritising training and professional development opportunities that equip nurses with the knowledge and skills to effectively manage VT and also, provide trauma-informed care. This aligns with the TIC principle of staff training, where trauma awareness training is essential for all staff members (Harris & Fallot, 2001). By investing in education and training, leaders ensure that nurses have the tools they need to support both themselves and patients, ultimately enhancing the quality of care provided.

In conclusion, the implications of this research extend beyond individual nursing practices to encompass organisational leadership within addiction services and its alignment with trauma-informed care principles. By aligning leadership practices with trauma-informed principles, organisational leaders can empower nurses, enhance staff well-being, and cultivate a culture of resilience and compassion. Through collaborative efforts and sustained commitment to trauma-informed care, organisational leaders can optimise patient outcomes, mitigate VT risk, and foster a workplace environment that promotes healing and recovery for both staff and patients alike.

## **7.6 Reflection on the Research Process**

This section reflects on my research process and doctoral journey as a nurse (a longer version can be found at Appendix 17). As I delved deeper into my nursing education, I found myself drawn to the realm of mental health nursing during the final year of my

bachelor's degree. However, the geriatric field, where I initially thought I might thrive, did not resonate with me as I had hoped. Despite this realisation, I remained open-minded, knowing that the right path would reveal itself in time. My nursing career began in 2014 as I was armed with the theoretical knowledge gained from my studies at an Italian university, I was eager to put my nursing skills into practice and make a meaningful difference in the lives of those in need.

In 2016, I started working at an addiction centre in Dublin, where I discovered the complexity of addiction care. Three significant observations shaped my nursing career. First, the therapeutic relationship with addiction patients challenged traditional boundaries, requiring empathy and professionalism. Second, I noticed high turnover rates among colleagues due to the emotional toll of addiction nursing. Some sought refuge in more familiar hospital settings. Third, a few, including myself, felt drawn to addiction nursing despite the challenges.

Driven by curiosity, I pursued a master's in addiction studies in 2018 but couldn't fully explain the differences in nurses' experiences. I then discovered vicarious trauma, a phenomenon prevalent among nurses, especially in addiction services. This discovery led me to pursue a Ph.D., aiming to explore the prevalence and risks of vicarious trauma among addiction service nurses and investigate the role of effective leadership in mitigating its impact.

Five months into my Ph.D. journey, the universe gifted me with a double dose of joy: my beautiful twins, Lily and Erik. They became my driving force, propelling me forward in my research, even when the path seemed insurmountably challenging. After regaining my strength post-birth, I embarked on a journey of networking with my fellow Ph.D. peers, meeting once a month during our research educational days. But seven months after the twins' arrival, an unexpected pandemic named Covid-19 swept into our lives. I was denied face-to-face conferences and camaraderie of fellow researchers due to stringent lockdown measures. On one hand, I felt isolated from the research realm I so dearly craved; on the other, I found more time to both cherish my twins and advance my Ph.D., bolstered by my unwaveringly supportive husband.

My life became a threefold division: family, Ph.D., and work. Within this mosaic, I found an opportunity to scrutinise not only my colleagues but also myself during the trying days of Covid-19 restrictions. It allowed me to examine the phenomenon of VT with a magnifying glass. As my third year of doctoral studies started, I welcomed another addition to our family, baby Ivy. At this juncture, my eagerness to share my research with a wider audience ignited. The preliminary findings of my quantitative research were profoundly intriguing. A mere six days after Ivy's arrival, with my new-born asleep beside me, I presented my research findings at the ENTER German conference.

Doubt occasionally whispered in my ear, urging me to relinquish my pursuit. Yet, thanks to the unwavering support of my supervisors, my stalwart husband, and the loving embrace of my family, I persevered. I was acutely aware that this topic needed to be illuminated for the betterment of addiction nursing practices and, above all, for the benefit of my cherished patients who had already endured too much. Baby Ivy was but a few months old when in-person educational research days restarted. Encouraged by my supervisors, I eagerly participated at them, accompanied by baby Ivy. With my head held high, I even delivered a lecture at TCD and joined the Lisbon Addiction Conference in 2022 with Ivy by my side. Empowered by the revelations from the second qualitative phase of my research, I pressed on, knowing that this endeavour was worth every ounce of the challenges I was facing.

As I reflect on my doctorate journey, I am grateful for the opportunity to shine a light on this overlooked aspect of nursing practice. Unravelling the intricate relationship between addiction nursing and vicarious trauma has not only deepened my understanding of the complexities of human experiences but has also highlighted the dire need for greater support and awareness within our profession.

With newfound confidence and the wealth of knowledge and experience acquired over the past five years, I decided to intensify my efforts in improving the practice of addiction nursing. It was a tremendous honour when I was nominated to serve as the President of the International Nurses Society on Addictions in Ireland in July 2023.

Moving forward, my hope is that my research and efforts will contribute to the collective knowledge of the addiction nursing community, empowering healthcare organisations to implement comprehensive support systems that protect nurses from the emotional burden of vicarious trauma. By fostering resilience and promoting a collaborative, compassionate and understanding work environment, we can nurture a cadre of nurses who not only excel in their profession but also find fulfilment in their dedication to caring for people with addiction problems.

In conclusion, my personal and academic journey has taught me that passion, hard work, curiosity, and empathy can be powerful driving forces in nursing. As I conclude my thesis, I am more committed than ever to fostering an environment where nurses in addiction services can find not just resilience but also a sense of purpose, enabling them to provide the highest standard of care to those who depend on us during their most vulnerable moments. The question of "why" some nurses thrive while others struggle remains ever-present, and it is through ongoing research, dedication, and collaboration that we can unlock the answers and usher in a new era of compassion and support within our profession.

## **7.6 Conclusion of Research**

In conclusion, this final chapter underscores the vital contributions and recommendations that this research has brought forth in the context of addressing vicarious trauma among nurses in addiction services. The significance of this issue cannot be overstated, as it directly impacts both the well-being of nurses and the quality of patient care.

The guidelines developed through this study offer a multifaceted approach to empower nurses individually and encourage healthcare organisations to embrace a distributed leadership model. For nurses, these guidelines emphasise self-awareness, recognising personal risk factors, employing effective coping mechanisms, embracing distributed leadership, remaining vigilant for signs of vicarious trauma, strengthening protective factors, and maintaining constant awareness of its presence. By integrating these

guidelines into their practice, nurses can transform the potential negative impact of trauma exposure into an opportunity for personal growth and resilience.

Additionally, fostering a DL approach can have wide-ranging benefits, not only for the well-being of individual nurses but also for the overall quality of patient care. Organisations are encouraged to create an environment that acknowledges and supports the challenges of vicarious trauma, including providing resources, trauma education, debriefing sessions, and ongoing support to nurses. By proactively addressing vicarious trauma and implementing these guidelines, organisations can significantly reduce the emotional toll on nurses, thereby enhancing patient care quality.

Looking ahead, the research calls for a comprehensive, multi-faceted approach. This includes raising awareness among nursing students, providing continuous professional development for practicing nurses, and creating a vicarious trauma-informed environment within healthcare organisations. By addressing vicarious trauma at multiple levels, nursing education and healthcare systems can play a pivotal role in supporting the mental and emotional well-being of nurses, ultimately leading to better patient outcomes and a more resilient nursing community.

The dedication remains firm in fostering an environment where nurses can thrive, finding fulfilment in their dedication to caring for those in need. By combining passion, curiosity, and empathy, a nursing community can continue to make meaningful contributions to nursing practice, organisational leadership, and, above all, the well-being of patients and healthcare professionals alike. Through the implementation of the recommended guidelines and the adoption of a supportive leadership approach, a more resilient and empowered nursing workforce can be cultivated. This, in turn, is poised to yield advancements in patient care quality, thereby establishing a notable enhancement in overall healthcare outcomes.

## **Presentations Related to this Thesis**

- 1- 2021 ENTER Conference -Germany (online)
- 2- 2022 TheConf TCD
- 3- 2022 Lisbon Addiction Conference
- 4- 2023 TheConf TCD
- 5- 2023 Society for the Study in Addiction PhD Symposium
- 6- 2023 International Nurses Society on Addiction Irish Chapter - Workshop

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## Appendix 1 a - Participant Information Leaflet- Interview

**Name of Study:** Vicarious trauma among Nurses working in Addiction Services and the role of Leadership: A Mixed Methods Study

Site	<b>School of Nursing &amp; Midwifery</b>
Principal Investigator(s) and Co-Investigator(s) (insert names, titles and contact details)	<b>Kristine Nicki Annunziata</b>
Study Organiser/ Sponsor (if applicable)	<b>N/A</b>
Data Controllers	<b>Trinity College Dublin (for research data)</b>
Data Protection Officer	<b>Data Protection Officer Secretary's Office Trinity College Dublin Dublin 2</b>

You are being invited to take part in a research study that is being done by K. Nicki Annunziata. Before you decide whether or not you wish to take part, please read this information sheet carefully. Ask K. Nicki any questions. Don't feel rushed or under pressure to make a quick decision. You should understand the information provided in this participant information leaflet of this study so that you can make a decision that is right for you.

*This leaflet has five main parts:*

*Part 1 – The Study*

*Part 2 – Data Protection*

*Part 3 – Costs, Funding and Approval*

*Part 4 – Future Research*

*Part 5 – Further Information*

## Part 1 – The Study

### Why is this study being done?

This research aims to measure the prevalence and risk of vicarious trauma (VT) among nurses working in addiction services and the association between leadership and VT. Vicarious trauma is a phenomenon characterised by the negative change of cognitive schemes and belief systems that derives from the empathic involvement of healthcare professionals with the traumatic experiences of others (McCann *et al.*, 1990). Nurses who work in addiction services are highly vulnerable to experience VT, as people with substance misuse have experienced one, or more, traumatic events in the past (Condrón, 2016; Lambert and Gill-Emerson, 2017; Hingray *et. al.*, 2018). The literature reviewed highlighted that leadership is of central importance for a supportive and well-organized work environment that mitigates the possible development of vicarious trauma (Pearlman 1999; Cummings, 2004; Sommer 2008). Research has indicated that it is not sufficient for healthcare professionals to use personal coping mechanisms, but it is the responsibility of leadership to create a healthy work environment designed to reduce potential vicarious trauma experiences (Sommer, 2008). The study will utilise Mixed Methods Sequential Explanatory Design. There are two phases of data collection. Your participation will be required for phase two: data is collected through an interview.

### Why have I been invited to take part?

You have been invited because you fall within the selection criteria as you are a nurse who works with patients with addiction problems, and therefore at risk of developing vicarious trauma.

This research is composed of two phases, a quantitative and a qualitative one. You have been invited to participate in the second phase, which intends to interview up to 15 nurses who work in addiction services. After this number is reached, no more nurses will take part to the research.

### Do I have to take part? Can I withdraw?

- participation is **voluntary**;
- a decision not to consent will have **no adverse consequences**;
- consent can be withdrawn at any time.
- to withdraw you can contact K.Nicki via email (annunzik@tcd.ie) or via phone (00353 838339039)

#### What happens if I change my mind?

- Changing your mind will not affect you in any way
- Your data collected to the point of withdrawal will be eliminated.
- Your withdrawal will be indicated (anonymously) in the research for statistical purposes.

You don't have to take part in this study. It is entirely voluntary. You can change your mind about taking part in the study and opt-out at any time even if the study has started. You don't have to give a reason for not taking part or for opting out. If you wish to opt-out, please contact K. Nicki Annunziata, on 00353 838339039 or annunzik@tcd.ie, who will be able to organize this for you

#### How will the study be carried out?

The qualitative research's data collection will start June 2021. There will be individual face-to-face interviews either in person or via a Microsoft Meetings, with nurses who work in addiction services or who comes across patients with addiction problems. It depends on the COVID situation and where you are based, you can meet face to face with K. Nicki or we can arrange an online meeting. An interview schedule will be used to guide the interviews, from which K. Nicki is collecting data. The interview will be audio-recorded. This second qualitative phase of the research will collect data to assess nursing needs regarding potential risk and protective factors against vicarious trauma.

#### What will happen to me if I decide to take part?

1. Contact K. Nicki Annunziata via email annunzik@tcd.ie or via phone 0353 0838339039 to confirm your decision to participate.
2. K. Nicki will send you a consent form and leave you 7 days to think about participating to this interview.

3. Once you confirm your decision you will have to complete the form and send it back signed to K. Nicki. You can send it via email, or via post to a secure address.
4. K. Nicki will give you options of days and times that better suit you to proceed with the interview
5. Depending on the COVID situation, you can choose to do a face-to-face interview or an online interview. If you live outside the Republic of Ireland K. Nicki will arrange an online meeting.
6. The interview will last one hour.
7. At the end of the interview, there will be a winddown period.

#### **What will happen to my Samples and Data?**

This research has been ethically approved, and it's following ethics code and GDPR. Your data will be stored on an Excel database, situated on a password protected encrypted secure folder on the researcher's Drive Server at TCD School of Nursing. Your name will be replaced with a pseudonymised name throughout the research. Your original name will be deleted from records and will not be stored anywhere. You will be coded in a pseudonymised format.

Your consent form, which contains your name, will be safely stored in a locked filing cabinet in Trinity College Dublin's room and an electronic copy will be sent to Nicki's supervisors, Catherine Comiskey and Elizabeth Curtis.

The audio file collected will be destroyed immediately after a transcription is made. This transcription will hide any personal data.

Your information once the research has ended, will be kept for 7 years and then destroyed. Your anonymous and pseudonymised information will be visible in the final dissertation of the research.

#### **Are there any benefits to taking part in this research?**

Taking part in this study will not directly benefit you. However, research performed using data from these interviews with your information may help us to better understand the effects and protective factors of vicarious trauma and may result in new approaches. By participating, you are helping to advance evidence-based practice and knowledge science for future generations of nurses.

**Are there any risks to me or others if I take part?**

There are no risks. Great care will be taken to ensure the confidentiality of all data and the risk to participants of a breach of confidentiality is considered very low. There are no other known potential risks.

**Will I be told the outcome of the study? Will I be told the results of any tests or investigations performed as part of this study that relate to me?**

Results from this study will be published in relevant journals and presented at conferences. Data used will not be linked to those who participated in the study.

## Part 2 – Data Protection

**What information about me (personal data) will be used as part of this study? Will my medical records be accessed?**

The personal data will be collected to provide a description of the sample of participants and include the following:

- Age
- Years working in addiction services
- Highest Education Level
- Gender
- Personal experiences regarding working in addiction service

**What will happen to my personal data?**

K. Nicki only will have access to your personal data.

Personal data will be processed **only as is necessary** to achieve the objective of the research and will not be processed in a way that damage or distress will be caused to you. Personal data will be kept (in a pseudonymised format) for 7 years then they will be securely destroyed.

The pseudonymised data will be in my research dissertation. The results of my research might be published internationally.

The audio file will be destroyed immediately after K. Nicki transcribes it. The transcribed document will be pseudonymised, and stored in word format in a password protected encrypted secure folder on the Drive Server at TCD School of Nursing.

**Who will access and use my personal data as part of this study?**

Personal data will be reviewed, accessed and used exclusively by K. Nicki.

K. Nicki will pseudonymise your name, before sharing your information. As per the regulation of Trinity College Dublin, consent forms must be scanned and sent electronically to supervisors. They will store your consent form for 7 years, and then destroyed.

**Will my personal data be kept confidential? How will my data be kept safe?**

Your privacy is important to us. We take many steps to make sure that we protect your confidentiality and keep your data safe. It will be possible to identify you, as K. Nicki will only share data in a pseudonymised format.

K. Nicki is bound by a code of confidentiality and secrecy.

Your data will be safely stored on a password protected encrypted secure folder on the Drive Server at TCD School of Nursing, where there is restricted access.

#### **What is the lawful basis to use my personal data?**

By law, we can use your personal information for scientific research as in the public interest. We will also ask for your explicit consent to use your data as a requirement of the Irish Health Research Regulations.

#### **What are my rights?**

You are entitled to:

- The right to access to your data and receive a copy of it
- The right to restrict or object to processing of your data
- The right to object to any further processing of the information we hold about you (except where it is de-identified)
- The right to have inaccurate information about you corrected or deleted
- The right to receive your data in a portable format and to have it transferred to another data controller
- The right to request deletion of your data

By law you can exercise the following rights in relation to your personal data, unless the request would make it impossible or very difficult to conduct the research. You can exercise these rights by contacting K. Nicki Annunziata or the Trinity College Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: [dataprotection@tcd.ie](mailto:dataprotection@tcd.ie). Website: [www.tcd.ie/privacy](http://www.tcd.ie/privacy).

## Part 3 – Costs, Funding and Approval

**Has this study been approved by a research ethics committee?**

Yes, this study has been approved by the Faculty of Health Science Research Ethics Committee.

**Who is organising and funding this study? Will the results be used for commercial purposes?**

The study is conducted by K. Nicki and supervised by Catherine Comiskey and Elizabeth Curtis.

The research is entirely self-funded. K. Nicki is not paid to do this research nor to recruit the participants. The results will not be used for commercial purposes.

**Is there any payment for taking part? Will it cost me anything if I agree to take part?**

No, we are not paying patients to take part in the study.

## Part 4 – Future Research

**Will my personal data be used in future studies?**

No, you only give permission for your data to be used for the current study. However, if the research needs more information in the future, K. Nicki might ask to use the data again (if in the 7 years before being eliminated) or collected again, after that K. Nicki secures a new signature for a new consent form.

## Part 5 – Further Information

### Who should I contact for information or complaints?

If you have any concerns or questions, you can contact:

- K. Nicki Annunziata: 0838339039 or [annunzik@tcd.ie](mailto:annunzik@tcd.ie)
- Data Protection Officer, Trinity College Dublin: Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: [dataprotection@tcd.ie](mailto:dataprotection@tcd.ie). Website: [www.tcd.ie/privacy](http://www.tcd.ie/privacy).

Under GDPR, if you are not satisfied with how your data is being processed, you have the right to lodge a complaint with the Office of the Data Protection Commission, 21 Fitzwilliam Square South, Dublin 2, Ireland. Website: [www.dataprotection.ie](http://www.dataprotection.ie).

### Will I be contacted again?

If you would like to take part in this study, you will be asked to sign the Consent Form that will be send to you. You will be given a copy of this information leaflet and the signed Consent Form to keep. If you accept to participate, K. Nicki will contact you to arrange the meeting

## Appendix 1 b- Consent form for participating to the second qualitative phase (interviews)

### CONSENT FORM



Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin

**STUDY NAME:** Vicarious trauma among Nurses working in Addiction Services and the role of Leadership: A Mixed Methods Study

**Principal Investigator:** Kristine Nicki Annunziata

There are 10 sections in this form. Each section has a statement and asks you to tick the box if you agree. The end of this form is for the researchers to complete.  
Please tick the box if you agree with the statement. Please feel free to ask questions if there is something you do not understand.  
Thank you for participating.

General	Tick box
I confirm I have read and understood the <b>Information Leaflet</b> for the above study. The information has been fully explained to me and I have been able to ask questions, all of which have been answered to my satisfaction.	
I understand that this study is <b>entirely voluntary</b> , and if I decide that I do not want to take part, I can stop taking part in this study at any time without giving a reason. I understand that deciding not to take part will not affect me in any way.	
I understand that I <b>will not be paid for taking part in this study</b> .	
I know how to contact the research team if I need to.	
I agree to take part in this research study having been fully informed of the <b>risks, benefits and alternatives</b> which are set out in full in the information leaflet which I have been provided with.	
I agree to being contacted by researchers by email or by phone as part of this research study.	
Data processing	Tick box

I agree to allow pseudonymised personal data about me to be shared with third parties including: scientific journals and research institutions for the purpose of informing the nursing practice of risk and protective factors against vicarious trauma, as described in the Information leaflet.	
I understand that pseudonymised personal data about me, including the transfer of this pseudonymised personal data about me outside of the EU, will be protected in accordance with the General Data Protection Regulation.	
I understand that there are <b>no direct benefits to me</b> from participating in this study. I understand that <b>results will not be given to me.</b>	
I understand that <b>I can stop taking part in this study</b> at any time without giving a reason and this will not affect me.	

-----  
Participant Name (Block Capitals)      Participant Signature      Date

**K. Nicki Annunziata**

-----  
Witness Name (Block Capitals)    Witness Signature      Date

**To be completed by the Principal Investigator or nominee.**

I, the undersigned, have taken the time to fully explain to the above participant the nature and purpose of this study in a way that they could understand. I have explained the risks and possible benefits involved. I have invited them to ask questions on any aspect of the study that concerned them.

I have given a copy of the information leaflet and consent form to the participant with contacts of the study team

**Researcher name**

K. Nicki Annunziata

**Signature**



## Appendix 1 c- Participant Information Leaflet for quantitative phase

**Name of Study:** The Prevalence of Vicarious trauma among Nurses working in Addiction Services and the role of Leadership: A Mixed Methods Study

Site	<b>School of Nursing and Midwifery</b>
Principal Investigator(s) and Co-Investigator(s) (insert names, titles and contact details)	<b>Kristine Nicki Annunziata</b>
Study Organiser/ Sponsor (if applicable)	<b>N/A</b>
Data Controllers	<b>Trinity College Dublin</b>
Data Protection Officer	<b>Data Protection Officer Secretary's Office Trinity College Dublin Dublin 2</b>

This survey is entirely **anonymous**.

You are invited to take part anonymously in a research study that is being done by Kristine Nicki Annunziata.

It will take you about 10 minutes to complete the survey.

Before you decide whether or not you wish to take part, please read this information sheet carefully.

The survey is composed of a series of questions with 6 possible answers (1 = Never 2 = Rarely 3 = Sometimes 4 = Often/Very Often 5 = Always or N/A).

At the end of the survey you can contact K. Nicki via email ([annunzik@tcd.ie](mailto:annunzik@tcd.ie)) or via phone (0838339039) if you would like to participate to the second qualitative phase of this research, or if you have any queries.

*This leaflet has five main parts:*

*Part 1 – The Study*

*Part 2 – Data Protection*

*Part 3 – Costs, Funding and Approval*

*Part 4 – Future Research*

*Part 5 – Further Information*

## Part 1 – The Study

### Why is this study being done?

This research aims to measure the prevalence, risk and protective factors of vicarious trauma among addiction nurses, to assess nursing needs and to inform the nursing practice. Vicarious trauma is a phenomenon characterised by the negative change of cognitive schemes and belief systems that derives from the empathic involvement of healthcare professionals with the traumatic experiences of others (McCann *et al.*, 1990). Nurses who work in addiction services are highly vulnerable to experience VT, as people with substance misuse have experienced one, or more, traumatic event in the past (Condrón, 2016; Lambert and Gill-Emerson, 2017; Hingray *et. al*, 2018). The literature reviewed highlighted that leadership is of central importance for a supportive and well-organized work environment that mitigates the possible development of vicarious trauma (Pearlman 1999; Cummings, 2004; Sommer 2008). Research has indicated that it is not sufficient for healthcare professionals to use personal coping mechanism, but it is the responsibility of leadership to create a healthy work environment designed to reduce potential vicarious trauma experiences (Sommer, 2008).

The study is will utilise Mixed Methods Sequential Explanatory Design. There are two phases for data collection. Your participation will be required for phase one: data is collected through questionnaire online. The analysed data from the first phase will inform the second qualitative phase of the study. *(At the end of the survey you can contact K. Nicki via email (annunzik@tcd.ie) or via phone (0838339039) if you would like to participate to the second qualitative phase of this research)*

### Do I have to take part? Can I withdraw?

Your participation is **voluntary**; Once started the survey you can **withdraw** at any time, before the submission of the survey.

### What happens if I change my mind?

- Changing your mind will not affect you in anyway
- You can withdraw any time before the submission of the survey.

You don't have to take part in this study. It is entirely voluntary. You can change your mind about taking part in the study and opt out at any time of the survey, before the submission of it. You don't have to give a reason for not taking part or for opting out. If you wish to opt out, please contact K. Nicki Annunziata, on 0838339039 or annunzik@tcd.ie, who will be able to organize this for you.

## Part 2 – Data Protection

### Are my survey responses anonymous and secure?

The survey is entirely anonymous. Data are non-identifiable. At no point of the survey you will have to leave personal sensitive data (such as name or email address). K. Nicki ensures that the anonymised data is kept secure, and that it's collected only as much data as it is required to complete the research.

The first page of the survey there will be a small summary of this participant information leaflet. The first question of the survey will be: "Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey."

By clicking yes, you **agree and consent** to use your answers for the collection of data.

## Part 3 – Costs, Funding and Approval

**This copy has to be review by the Ethics Committee first. Once approved.**

The study is conducted by K. Nicki and supervised by Catherine Comiskey and Elizabeth Curtis. The research is entirely self-funded. K. Nicki is not paid to do this research nor to recruit the participants.

### Is there any payment for taking part? Will it cost me anything if I agree to take part?

No, we are not paying participants to take part in the study. It will not cost anything the participants.

## Part 4 – Future Research

If you wish, you can contact K. Nicki to participate to the next phase of this research. The next phase

consists on a face-to-face or online (via zoom) interview. This interview will last 1 hour, where K. Nicki will ask you 10 questions to answer openly. Your contribution is needed highly appreciated

### Are there any benefits to taking part in this research?

Taking part in this study will not directly benefit you. However, research performed with your information may help us to better understand the effects and protective factors of vicarious trauma and may result in new approaches. This is a long-term research project, so the benefits of the research may not be seen for several years. By participating, you are helping to advance science for future generations of nurses.

### Are there any risks to me or others if I take part?

There are no risks as it's anonymous.

## Part 5 – Further Information


Who should I contact for information or complaints?

If you have any concerns or questions, you can contact:

- K. Nicki Annunziata: 0838339039 or [annunzik@tcd.ie](mailto:annunzik@tcd.ie)
- Data Protection Officer, Trinity College Dublin: Data Protection Officer, Secretary's Office, Trinity College Dublin, Dublin 2, Ireland. Email: [dataprotection@tcd.ie](mailto:dataprotection@tcd.ie).  
Website: [www.tcd.ie/privacy](http://www.tcd.ie/privacy).

Under GDPR, if you are not satisfied with how your data is being processed, you have the right to lodge a complaint with the Office of the Data Protection Commission, 21 Fitzwilliam Square South, Dublin 2, Ireland. Website: [www.dataprotection.ie](http://www.dataprotection.ie)

## Appendix 2 - Email to Lila Petra Vrklevski -Permission to use VTS

 **Nicki Annunziata** Nov 17, 2020

Good afternoon


I was wondering if I could use your vicarious trauma scale that you used in your excellent study about The Impact on Solicitors of Exposure to Traumatic Material.

My name is Kristine Nicki and I am a 2nd year PhD researcher. My study is about vicarious trauma and addiction nurses. I believe your scale would be perfect for my study.

thank you in advance,

Kristine Nicki

---


 **Lila Petar Vrklevski** to you Nov 17, 2020

Dear Nicki,

You have my permission to use the VTS as well as my best wishes with your studies. Let me know if I can be of further assistance.

regards, Lil

---

 **Nicki Annunziata** Nov 19, 2020

Dear Lila,

Thank you so much for everything.

Best Regards,

Nicki

### Appendix 3- Research Objective and Relevant Items on Questionnaire and interview

Research Objective	Relevant Items on Questionnaire and interview	
<b>Objective 1:</b> to quantify the prevalence of <u>(1) risk and (2) protective factors</u> of vicarious trauma among addiction nurses.	Prevalence with VTS Risk factors with demographic questions and VT-ORG Protective factors: coping mechanisms.	Q U A N T
<b>Objective 2:</b> to measure the association between leadership and vicarious trauma among nurses working in addiction services.	The VT–ORG part of the questionnaire allows us to measure the association between leadership and vicarious trauma, particularly with question number: 31. 32. 33. 34. 35. 36. 39. 46. 50. 72. 75. 80.	Q U A N T
<b>Objective 3:</b> to explore <u>nurses’ experiences of VT</u> and <u>determine their views about the influence of leadership</u> on VT.	Through the face-to-face interview: (1) Explore nurses’ experiences of VT with question such as: <ul style="list-style-type: none"> <li>• Statement 6: Can you tell me about any experiences that stand out in relation to working with trauma? How do you feel about those experiences?</li> <li>• Statement 7: Can you tell me how you feel you may have changed in relation to working with trauma since you began?</li> <li>• Statement 9: Have you ever felt that you reached your limits with this work?</li> </ul> (2) Determine their views about the influence of leadership on VT with question such as: <ul style="list-style-type: none"> <li>• Statement 11: Please describe the leadership model used at work and give an account of how you participate in leadership.</li> <li>• Statement 12: Please tell me about your views and thoughts</li> </ul>	Q U A N L

	about the relevance of leadership and its role in VT. Comment also on the impact of leadership on your work environment.	
<b>Objective 4:</b> to determine nurses' perceptions of protective factors for vicarious trauma	Through the face-to-face interview we are able to determine nurses' perceptions of protective factors for vicarious trauma, with question such as: <ul style="list-style-type: none"> <li>• Statement 8: What do you feel helps you most in relation to the demands of this job?</li> <li>• Statement 10: Can you tell me what you feel is the most challenging aspect of your work? How do you cope with it?</li> </ul>	Q U A N L
<b>Objective 5:</b> to develop guidelines for vicarious trauma and leadership based on the findings from the study.	This objective was based on the findings from the study.	OUT-COME

### Appendix 3.1 – Quantitative findings and Relevant Follow-Up Questions

Quantitative Finding	Relevant Follow-Up Questions
Prevalence of VT: 88.43% of nurses scored moderate/high risk of developing VT	<ul style="list-style-type: none"> <li>- What attracted you to work in the field of addiction?</li> <li>- Can you tell me about the qualities that you consider suitable for your work?</li> <li>- Can you share your thoughts about how you feel you may have changed by working with traumatised patients?</li> <li>- Can you share your thoughts about the most challenging aspects of your work? Have you ever felt that you reached your limits with this work?</li> <li>- Can you share with me your views and experiences about your work? Could you please describe in detail two scenarios working with clients, one where everything went well and one where it was traumatic?</li> <li>-Can you describe any experiences that stand out in relation to working with traumatised patients?</li> <li>- Could you please describe what kind of nursing care do your patients need? What kind of addiction would you see? In your opinion, would you consider them traumatised people?</li> <li>- Can you share your thoughts about how you feel you may have changed by working with traumatised patients?</li> </ul>

Quantitative Finding	Relevant Follow-Up Questions
<p>Protective factors: Boundaries, Detachment, Self-Care, Supervision, Peer Support, Healthy Lifestyle, Education, Social Support: No statistically significant correlation with VT</p>	<p>- Can you tell me about the qualities that you consider suitable for your work? -Can you share your thoughts about the most challenging aspects of your work? Have you ever felt that you reached your limits with this work? -Kindly share with me the approaches you use for managing therapeutic relationships at work. a. Are there any specific challenges to this? -What do you feel helps you most in relation to the demands of this job? What are your coping mechanisms? Please give details. Do you feel your personal history helps you with the demand of this job? Or makes you more vulnerable? -Please share your views about the nature of communication at work. Comment also on its importance or non-importance between good communication and VT.</p>
<p>Risk factors: Variation of VT among European Countries; Higher Position higher VT.</p>	<p>- Could you please describe in your own words the national drug policy and philosophy you are working under and the policy/philosophy of the organisation you are working for? - Can you describe your work setting? What types of treatment does your service provide? (prompt detoxification treatment or harm reduction or abstinence based/rehabilitation treatment , inpatient, out patient etc?) - Can you tell me about the qualities that you consider suitable for your work? -Please share your views about the nature of communication at work. Comment also on its importance or non-importance between good communication and VT.</p>
<p>Organisational leadership: Supervision Weaknesses in leadership domains contribute to higher vicarious trauma levels. Employee Empowerment and Work Environment Importance of teamwork, collaboration, and staff connection. Training and Professional Development Lack of addiction-</p>	<p>- Can you share with me your views and experiences about your work? Could you please describe in detail two scenarios working with clients, one where everything went well and one where it was traumatic. a) what was the differences between the two events? b) were there differences in leadership, case management, resources available with the two events? -Please share your views about the nature of communication at work. Comment also on its importance or non-importance between good communication and VT. -Could you share with me if your organisation provides you or supports you with outside meetings, trainings, and education? a) and access to adequate resources to perform your work? b) Do you feel your organisation recognised and values your role and responsibilities? -Please describe in your own words what leadership means to you. a) how you participate in leadership? How is that beneficial to your patients and the therapeutical relationship you have with them? -Please tell me about your views and thoughts about the relevance of leadership and its role in VT. Comment also on the impact of leadership on your work environment. a) Do you think that your organisation is proactively addressing negative consequences of working with traumatised clients? -When were you hired did your organisation tell you about the negative impact of the work? Did they ever mention VT or indirect trauma? Are you or your organisation proactively addressing VT?</p>

<b>Quantitative Finding</b>	<b>Relevant Follow-Up Questions</b>
<p>related training and education opportunities  Staff Health and Wellness  Deficiency in promoting well-being within organisations.</p>	

# Appendix 4 - Questionnaire Survey Consent Form and Design

Untitled Project

Projects Directories Actions Library Help 3

Survey Actions Distributions Data & Analysis Reports

You are currently making edits to this survey. Changes won't be live until you publish.

Untitled Project

iQ Score: Fair

Draft Version

CONSENT Block Options

Q1

Please read the participant information leaflet before starting the survey.

This survey aims to quantify the prevalence of vicarious trauma (VT) and associated risk and protective factors of VT among nurses who work in addiction, and to measure the association between leadership and vicarious trauma. The survey will not collect any personal data. This survey is entirely anonymous. You can withdraw at any time before the submission of this survey. Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey.

YES  
 NO

Add Block

Professional Quality of Life Scale (ProQOL) Block Options

Q2

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 number that honestly reflects how frequently you experienced these things in the last 30 days.

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

## Appendix 5 - Interview Questionnaire

### DEMOGRAPHIC SHEET

Please do not write your name on this form. It will be stored separately from any other information that you will give during this study and will not be linked with your responses in any way. The information will allow me to provide an accurate description of the sample.

Please read this questionnaire carefully and tick {✓} the correct answers in the spaces provided.

#### Question 1.

Gender: Female \_\_\_\_\_ Male \_\_\_\_\_ Prefer Not to Say \_\_\_\_\_

#### Question 2.

Country you currently working in :

#### Question 3.

Nursing Education:

Place a tick in the space provided only if you have completed your studies. For example, if you are a registered nurse or midwife and currently undertaking a primary degree tick registered nurse or midwife not primary degree. You may tick as many as appropriate.

Registered Nurse (pre diploma) \_\_\_\_\_

Registered Midwife (pre diploma) \_\_\_\_\_

Diploma in Nursing \_\_\_\_\_

Diploma in Midwifery \_\_\_\_\_

Primary Degree \_\_\_\_\_

Master Degree \_\_\_\_\_

PhD \_\_\_\_\_

#### Question 4.

Current Position: Please indicate your current position at work. Tick only one. If you are in an acting position (for example acting clinical nurse specialist) then place a tick opposite clinical nurse specialist.

Student Nurse	_____
Student Midwife	_____
Staff Nurse	_____
Midwife	_____
Ward Sister/Manager	_____
Clinical Nurse Specialist	_____
Advanced Nurse Practitioner	_____
Assistant Director of Nursing	_____
Director of Nursing/Matron	_____
Other (please specify)	_____

**Question 5.**

Length of Time in Current Place of Employment:

Please indicate how long you have been working in your current place of employment. Tick only one.

Under 11 months	_____
1 – 3 years	_____
3 – 5 years	_____
5 – 7 years	_____
Over 7 years	_____

**Question 6.**

Years of experience in field of Addiction

Under 11 months	_____
1 – 3 years	_____
3 – 5 years	_____

5 – 7 years

\_\_\_\_\_

Over 7 years

\_\_\_\_\_

## INTERVIEW SCHEDULE

**Date of Interview:**

**Time of Interview:**

**Venue:** Zoom

**Duration of Interview:** 1 hour

**Facilitator:** K. Nicki Annunziata

### **Sequence of Activities:**

*1. Introduction: 5 minutes*

The facilitator introduces herself, reminds participants about the purpose of the interview and discusses how confidentiality and anonymity will be maintained. Permission to record notes and tape the interview is requested.

*2. Warm-up Questions: 5 minutes*

These non-threatening general questions are used at the beginning of the interview in an attempt to create a relaxed environment. Examples include the following:

- a) Did you have difficulty setting up zoom?
- b) Complete the biographic questionnaire by asking the questions above and ask the participant to sign the consent form and forward it to you.
- c) Inform participant about the use of pseudonyms.

*3. Main Body of Interview:*

This section consists of loosely phrased questions. However, it may be necessary to use a series of prompts, probes or checks during the interview.

---

Statement 1 5 minutes

What attracted you to work in the field of addiction?

Can you tell me about the qualities that you consider suitable for your work?

Statement 2 8 minutes

Could you please describe in your own words the national drug policy and philosophy you are working under and the policy/philosophy of the organisation you are working for?

Statement 3 8 minutes

Can you describe your work setting? What types of treatment does your service provide? (prompt detoxification treatment or harm reduction or abstinence based/rehabilitation treatment , inpatient, out patient etc?)

Could you please describe what kind of nursing care do your patients need? What kind of addiction would you see? In your opinion, would you consider them traumatised people?

Statement 7 8 minutes

Can you share your thoughts about how you feel you may have changed by working with traumatised patients?

Statement 10 8 minutes

Can you share your thoughts about the most challenging aspects of your work? Have you ever felt that you reached your limits with this work?

Statement 4 8 minutes

Can you share with me your views and experiences about your work? Could you please describe in detail two scenarios working with clients, one where everything went well and one where it was traumatic.

a) what was the differences between the two events?

- b) were there differences in leadership, case management, resources available with the two events?

Statement 5      8 minutes

Can you describe any experiences that stand out in relation to working with traumatised patients?

- c) How do you feel about those experiences?  
d) Could you share with me please what action are taken following a critical or acute incident at work?

Statement 6      8 minutes

Kindly share with me the approaches you use for managing therapeutic relationships at work.

- a. Are there any specific challenges to this?

Statement 8      8 minutes

What do you feel helps you most in relation to the demands of this job? What are your coping mechanisms? Please give details.

Do you feel your personal history helps you with the demand of this job? Or makes you more vulnerable?

Statement 9

Please share your views about the nature of communication at work.

Comment also on its importance or non-importance between good communication and VT.

Statement 12

Could you share with me if your organisation provides you or supports you with outside meetings, trainings, and education?

- a) and access to adequate resources to perform your work?  
b) Do you feel your organisation recognised and values your role and responsibilities?

Statement 13      8 minutes

Do you know about distributed leadership? *(give an explanation of what distributed leadership means, and ask if they feel like DL would be beneficial in their workplace.)*

Please describe in your own words what leadership means to you.

- a) how you participate in leadership? How is that beneficial to your patients and the therapeutical relationship you have with them?

Statement 14      10 minutes

Please tell me about your views and thoughts about the relevance of leadership and its role in VT.

Comment also on the impact of leadership on your work environment.

- a) Do you think that your organisation is proactively addressing negative consequences of working with traumatised clients?

Statement 15

When you were hired did your organisation tell you about the negative impact of the work? Did they ever mention VT or indirect trauma?

Are you or your organisation proactively addressing VT?

*4. Cool-off Period*      *10 minutes*

The facilitator winds up the interview by summarising the main points discussed.

Do you have you any further comments you wish to share?

**5. Conclusion**      5 minutes

The facilitator thanks respondents for participating in the study and once again reassures them about anonymity and confidentiality of data. The recording is switched off and the facilitator sees the participants off.

## **Appendix 6 a - Example of email sent for the recruitment of nurses for the second phase of this study.**

Good afternoon,

My name is Nicki, I am currently a doctoral candidate at Trinity College Dublin (TCD) and an addiction nurse in Ireland. My supervisors are Catherine Comiskey and Elizabeth Curtis.

Recently, you completed my questionnaire survey about Vicarious trauma and nurses who work in addiction services. I am emailing you in reply to your interest in participating in the second phase of my Ph.D. research.

The second phase consists of a 1-hour online Microsoft Team interview and I would like to schedule a date in June, if that suits you? Could you please let me know which date would suit you best?

Please find attached to this email a detailed leaflet for more information.

Thank you in advance and all the best

Nicki Annunziata

## **Appendix 6 b - Follow up email sent 2 weeks later to those who didn't answer the previous email.**

Good afternoon,

My name is Nicki, I am currently a doctoral candidate at Trinity College Dublin (TCD) and an addiction nurse in Ireland.

I sent you an email couple of weeks ago, I just wanted to follow up with you, in case you didn't receive it!

I would like to invite you to the second phase of my research. I believe you completed the survey about Vicarious trauma and Nurses who work in addiction services and left your interest in participating in the second phase.


This second phase consists of an hour meeting/interview through Zoom.

Your point of view and experiences are essential for my research!

Please find attached to this email a detailed leaflet for more information.  
Thank you in advance and all the best.

Nicki Annunziata

## Appendix 7 - Email to Lila Petra Vrklevski on changes to the VTS

 **Nicki Annunziata** Apr 2, 2022

Good morning,

I hope you are well.

I just wanted to let you know that I used your VT tool in my questionnaire survey and I received a good turnout. My objective is to quantify the prevalence of vicarious trauma among nurses who work in addiction services.

I read that Aparacio and colleagues (2013), had personal communication with you, where you explained that a score in the range of 8 to 28 indicates low VT, a range of 29 to 42 indicates moderate VT, and a range of 43 to 56 indicates high VT.


I wanted to inform you that for my study, it was deemed necessary to collapse the score into two: <28 low vicarious trauma and >29 moderate to high VT.

The rationale is that a low VT score level (<28) is acceptable, as it indicates exposure to trauma, but without being in dangerous distress. And scores above 28 indicate moderate/high distress or vulnerability for VT.

Do you agree?

All the best  
Nicki

---

 **Lila Petar Vrklevski** to you Apr 3, 2022

Dear Nicki, Happy to support this.  
Regards, Lil

## Appendix 8 - VT-ORG Questionnaire

<p>AREA 1</p> <p>LEADERSHIP AND MISSION</p>	<ol style="list-style-type: none"> <li>1. Leadership demonstrates a clear and decisive vision that supports and articulates the mission of the Organisation.</li> <li>2. Leadership models, values, and promotes open and respectful communication among staff.</li> <li>3. Leadership communicates clear and specific information on decision-making throughout the Organisation (e.g., resource allocation, scheduling, deadlines, implementation of policies and procedures).</li> <li>4. Leadership proactively addresses vicarious trauma in the Organisation's long-term vision and strategy.</li> <li>5. Leadership recognises and values my role within the Organisation.</li> <li>6. Leaders model a healthy work/life balance.</li> <li>7. Leadership communicates and enforces a no-tolerance policy concerning—             <ol style="list-style-type: none"> <li>a. sexual harassment;</li> <li>b. workplace violence, including bullying/hazing;</li> <li>c. intimate partner violence within or outside of the workplace;</li> </ol> </li> <li>8. d. discrimination based on age, gender, gender identity, sexual orientation, race, religion, ability, etc.</li> </ol>
<p>AREA 2</p>	<ol style="list-style-type: none"> <li>1. My Organisation uses a protocol to address staff affected by—             <ol style="list-style-type: none"> <li>a. clients' acute trauma;</li> <li>b. clients' cumulative/chronic trauma;</li> <li>c. Organisational/administrative stress;</li> <li>d. specific concerning behaviors (e.g., low morale, substance misuse, absenteeism).</li> </ol> </li> <li>2. My shift supervisors are readily accessible to support staff members following a critical or acute incident.</li> </ol>

	<p>3. I meet individually with my supervisor.</p> <p>4. Meetings with my supervisor provide a forum for addressing exposure to trauma.</p> <p>5. My supervisor reviews my job responsibilities and workload balance (e.g., variety of tasks, number of high-risk cases, call volume).</p> <p>6. I am able to discuss concerns about the Organisation or my job with my supervisor(s) without fear of negative consequences.</p> <p>7. My supervisor encourages and responds to my ideas and input.</p> <p>8. Staff meetings are highly valued as a mode of team communication and collaboration.</p> <p>9. Staff meetings are an opportunity to address topics related to vicarious trauma and stress management.</p> <p>10. My supervisor takes steps to ensure that staff have access to adequate resources to perform their jobs.</p> <p>11. Staff members are provided adequate and equitable salary and benefits.</p> <p>12. My supervisor ensures policies and/or procedures are in place to address staff grievances.</p> <p>13. My supervisor uses a formal performance evaluation process.</p> <p style="padding-left: 40px;">a. My performance evaluation includes a discussion of Organisational and individual strategies to minimise risk for vicarious traumatisation.</p> <p style="padding-left: 40px;">b. My performance evaluation includes a discussion of employee contributions to a positive work environment.</p>
AREA 3	<p>1. My Organisation provides opportunities for all staff members to provide input into the—</p> <p style="padding-left: 20px;">a. development of programs, practices, and policies;</p> <p style="padding-left: 20px;">b. evaluation of programs, practices, and policies.</p> <p>2. My Organisation shows appreciation for employee efforts in meaningful ways (e.g., public recognition, note in personnel file, promotions).</p> <p>3. My Organisation evaluates staff satisfaction, including job duties, Organisation policies, etc.</p>

	<p>4. When needed, my Organisation uses a written procedure that provides guidance for quick, effective, and confidential resolution of staff conflict.</p> <p>5. My Organisation shows that respect for each person is highly valued.</p> <p>6. Diversity is welcomed, respected, and valued.</p> <p>7. Disparaging comments and other demonstrations of disrespect are not tolerated.</p> <p>8. I experience a genuine sense of positive teamwork in my Organisation.</p> <p>9. My Organisation provides formal and informal opportunities for building a sense of community and teamwork among employees.</p> <p>10. When needed, my Organisation uses effective methods to address staff who are not able to contribute to a positive atmosphere or act as team players.</p> <p>11. Staff feel safe coming forward to discuss issues of workplace discrimination based on age, gender, gender identity, sexual orientation, race, religion, ability, etc.</p> <p>12. My Organisation encourages use of time off.</p> <p>13. My Organisation provides employees with a private, comfortable, and safe workspace.</p> <p>14. My Organisation provides opportunities for me to diversify my work tasks.</p>
AREA 4	<p>1. My Organisation orients new staff members to their job role and tasks.</p> <p>2. My Organisation provides training and education to all staff on—</p> <ul style="list-style-type: none"> <li>a. work-related vicarious trauma and its impact on work performance;</li> <li>b. strategies on how to address work-related stress and vicarious n traumatisation.</li> </ul> <p>3. My Organisation provides onsite opportunities for training and professional development.</p> <p>4. My Organisation supports attendance at outside meetings and trainings.</p> <p>5. I am prepared to cover for coworkers who are absent.</p> <p>6. My Organisation informs staff about expectations, opportunities, and steps necessary for advancement, including additional training and/or certification requirements.</p>

	7. I am encouraged to network and collaborate with coworkers and other Organisations.
AREA 5	<ol style="list-style-type: none"> <li>1. During the hiring and orientation of new staff, supervisors demonstrate their understanding of the risk for vicarious trauma and the importance of both individual and Organisational strategies to address it by— <ol style="list-style-type: none"> <li>a. asking final job applicants to articulate their own coping strategies;</li> <li>b. making final applicants aware of the Organisation’s strategies to reduce the negative impact of the work.</li> </ol> </li> <li>2. My Organisation offers services that support individual staff members (e.g., employee assistance program, chaplain services, mental health providers).</li> <li>3. My Organisation provides opportunities for peers to support one another.</li> <li>4. My Organisation conducts exit interviews that include questions related to vicarious trauma and the Organisation’s response.</li> <li>5. Differentiation between work and non-work hours is recognised and respected. <ol style="list-style-type: none"> <li>1. My Organisation’s policies— <ol style="list-style-type: none"> <li>a. support mental health and wellness;</li> <li>b. support physical health and wellness.</li> </ol> </li> <li>2. My Organisation provides wellness activities (e.g., fitness program, mindfulness/meditation, yoga, gym access).</li> <li>3. My Organisation encourages wellness activities (e.g., fitness program, mindfulness/meditation, yoga, gym access).</li> <li>4. My Organisation sponsors debriefing and/or support sessions after major traumatic events.</li> <li>5. My Organisation’s policies and/or practices support family members of employees.</li> </ol> </li> </ol>

## Appendix 9 - Outliers

Tests of Normality						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Vicarious trauma Score	.064	147	.200*	.981	147	.042

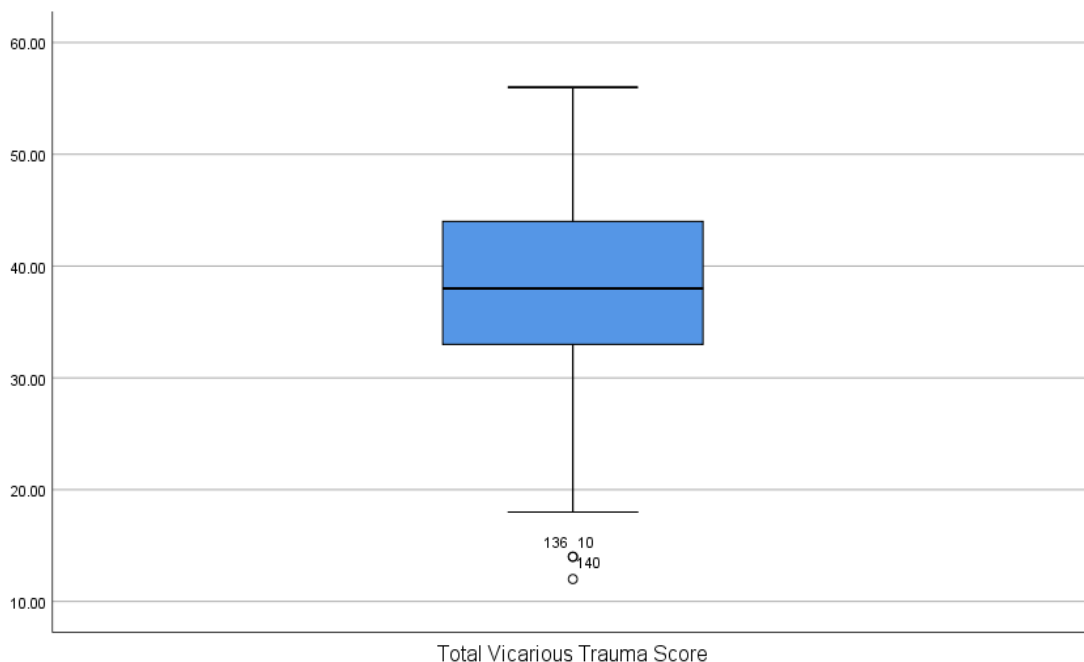
\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### *VTS test for normality*

The Shapiro-Wilk (table 4.5.2 above) test for normality is statistically significant (i.e.,  $p < .05$ ), as the significance level is .042 (i.e.,  $p = .042$ ). This suggests that VTS total scores were not normally distributed within the participants.

There were three outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths and 3 box-lengths from the edge of the box respectively (figure 4.5.1). On the depression index, the outliers had values of 12, 14 and 14.



*VTS total score boxplot*

According to Tabachnick and Fidell (1996), there are four reasons for the presence of an outlier: 1) incorrect data entry; 2) failure to specify missing value codes in computer control language; 3) the outlier is not a member of the population from which the researcher intended to sample; 4) the case is from the intended population but the distribution for the variable in the population has more extreme values than a normal distribution. It was established that the three outliers are neither the result of a data entry error, there was no failure to specify missing value codes in SPSS, and that the outliers were members of the population. The three outliers were genuinely unusual data points, and therefore there is no good reason to reject them as invalid. Therefore, following the recommendation of Tabachnick and Fidell (1996, pg. 66), the researcher retained the cases and didn't change the value of the variables.

The researcher changed the value of the three outliers to see if there was a significant impact on the data analysis. It was chosen to give an average score of 20 (instead of score= 12, 14 and 14), which is considered still a low VT total score.

Total Vicarious trauma Score (N=147) with **min= 12.00** and max= 56.00 the mean was= 37.9388 (SD=8.56)

Total Vicarious trauma Score (N=147) with **min= 20.00** and max= 56.00 the mean was= 38.0952 (SD= 8.16)

There was no major differences or impact in changing those outliers' score. Therefore, it was decided to leave the original total score for the three outliers.

## Appendix 10 - Frequency and valid percentage of VTS

VTS QUESTION	STRONGLY AGREE	AGREE	SLIGHTLY AGREE	NEITHER AGREED NOR DISAGREED	SLIGHTLY DISAGREE	DISAGREE	STRONGLY DISAGREE
1. My job involves exposure to distressing material and experiences.	n=53, 36.1%	n=51, 34.7%	n=27, 18.4%	n=5, 3.4%	n=5, 3.4%	n=1, 0.7%	n=5, 3.4%
2. My job involves exposure to traumatized or distressed clients	n=75, 51.4%	n=48, 32.9%	n= 13, 8.9%	n=1, 0.7%	n= 4, 2.7%	n=2, 1.4%	n=3, 2.1%
3. I find myself distressed by listening to my clients' stories and situations	n=15, 10.2%	n=31, 21.1%	n= 49, 33.3%	n=21, 14.3%	n=9, 6.1%	n=17, 11.6%	n=5, 3.4%
4. I find it difficult to deal with the content of my work	n=6, 4.1%	n=13, 8.9%	n=28, 19.2%	n=18, 12.2%	n=28, 19.2%	n= 40, 27.4%	n=13, 8.9%
5. I find myself thinking about distressing material at home"	n=5, 3.4%	n=19, 12.9%	n=40, 27.2%	n=20, 13.6%	n=20, 13.6%	n=26, 17.7%	n=17, 11.6%
6. Sometimes I feel helpless to assist my clients in the way I would like	n=17, 11.6%	n=43, 29.3%	n=49, 33.3%	n=11, 7.5%	n=11, 7.5%	n=12, 8.2%	n=4, 2.7%
7. Sometimes I feel overwhelmed by the workload involved in my job	n=17, 11.6%	n=46, 31.3%	n=42, 28.6%	n=15, 10.2%	n=10, 6.8%	n=11, 7.5%	n=6, 4.1%
8. It is hard to stay positive and optimistic given some of the things I encounter in my work	n=12, 8.2%	n=26, 17.7%	n=42, 28.6%	n=12, 8.2%	n=21, 14.3%	n=24, 16.3%	n=10, 6.8%

## Appendix 11 – Missing data

In this research, the decision to include all missing data can be convincingly supported by the results of Little's MCAR test and the application of EM (Expectation-Maximization) means imputation. Little's MCAR test indicated a non-significant outcome, with a Chi-Square value of 15.967, degrees of freedom (DF) of 18, and a significance level of 0.595. This result implies that the missing data follows a "Missing Completely at Random" (MCAR) pattern, meaning there is no systematic relationship between the missing data and any of the variables in the dataset. Consequently, incorporating the missing data into the analysis does not introduce bias or distort the study's findings. Additionally, employing EM means imputation to replace missing values with means is a statistically sound method that preserves data distribution and relationships. By including all available data, the research maximises the sample size, potentially increasing the study's statistical power and the generalisability of its conclusions. Furthermore, this approach enhances transparency and reproducibility in the research process, allowing other researchers to clearly comprehend and replicate the data handling procedures.

**Little's MCAR test, EM Means<sup>a</sup>**

Age	Years Current Employment	Years of Experience	Nursing Education	Current Position	Gender	Country
1.8846	2.1763	2.3933	1.3107	2.1410	1.73	1.84

Chi-Square = 15.967, DF = 18, Sig. = .595

## Appendix 12 - Prevalence of VT in European Countries

Table 4. Prevalence of VT in European Countries

Country	Mean	Std. Deviation	low	moderate to	Total
			VT	high VT	
			N and %	N and %	N and %
<b>Ireland</b>	38.2404	8.58368	10	94	104
			9.6%	90.4%	100.0%
<b>UK</b>	44.2500	3.09570	0	4	4
			0.0%	100.0%	100.0%
<b>Netherlands</b>	30.6154	5.60563	5	8	13
			38.5%	61.5%	100.0%
<b>Portugal</b>	38.8000	7.22298	1	14	15
			6.7%	93.3%	100.0%
<b>Other</b>	40.5455	9.58503	1	10	11
			9.1%	90.9%	100.0%
<b>Total</b>	37.9592	8.51902	17	130	147
			11.6%	88.4%	100.0%

Some of the differences in vicarious trauma prevalence among nurses estimates across nations can be ascribed to (1) differing national drug policies, (2) nursing educational system and role and (3) cultural and historical factors (such as the levels of trauma exposure from the general population, stigma, immigration history...).

As shown below it was possible to list the potential differences in these three categories listed above for each nation mentioned in the questionnaire survey. However, is impossible to summarise simply this topic in this chapter's appendix section, and more research is required.

COUNTRIES	NATIONAL DRUG POLICY	NURISNG EDUCATION SYSTEM AND ROLE	CULTURAL AND HISTORICAL FACTORS
IREALND	To reduce harm and to support recovery - health-led approach, rather than a criminal justice approach	Nursing in addiction area in Ireland has not been well documented. In Ireland, general nurses, mental health nurses, intellectual disabilities nurses and midwives are working in drug and alcohol treatment centers, with no requirement on addiction education or training, and no standard qualification. There is also no	Stigma - campaign that focuses on the issue of stigma 'Stop the Stigma: Addiction is a health issue not a crime'

		national guidance available on this nursing role.	
NETHERLANDS	Policy of toleration - possession of soft drugs is a criminal offence but small quantities for personal consumption are permitted	Advanced healthcare system -Proper title: addictions nurse (post bachelor) and addictions specialist nurse, in Dutch " <i>verslavingsverpleegkundige</i> " meaning "addictions nurse." The roles, tasks, and responsibilities of the " <i>verslavingsverpleegkundige</i> " are formalized in legal frameworks. - 2016 new technology-based healthcare programme for nurses	Highest prevalence of post-traumatic stress disorder among their general population  Nurses in the Netherlands earn significantly more than 10 years ago, and more than other European countries.
UK	Gathering clear information on UK's national drug policy is a difficult task. UK's drug policy leans towards criminal justice approach rather than a health approach.	Nurses not sufficiently prepared during their undergraduate education to work with people in addiction. The roles and scope of practice have been well described.	Drug-related deaths in the UK, particularly in Scotland, are at the highest level on record. NHS is experiencing stress.
PORTUGAL	First country in Europe to decriminalise all drugs, this framework has been a resounding success	Portuguese nurses are migrating, as there is an increase of unemployment.	Since 2001 decriminalisation of drugs strategy, there has been a cultural shift – less stigma

### *Ireland*

The data analysed reported that nurses who participated to the questionnaire survey in Ireland had a VT score of  $M = 38.5$  ( $SD = 8.1$ ), and 90.4% felt under the moderate/high incidence of VT. The development of nursing practice in the addiction field in Ireland, has not been well documented (Clancy et al, 2019). In details, following the (1) differing national drug policies, (2) nursing educational system and (3) cultural and historical factors of Ireland.

- (1) The Irish national drug policy aims in reducing harm and to support recovery and was launched in 2017. The health research board reports that this policy

emphasises a health-led approach, rather than a criminal justice approach, to address the drug situation in Ireland (HRB, 2022). The strategy is underpinned by a set of core values: supply reduction, prevention, treatment, rehabilitation, research, focus on the role of users, their families and communities. The vision is for “A healthier and safer Ireland, where public health and safety is protected and the harms caused to individuals, families and communities by substance misuse are reduced and every person affected by substance use is empowered to improve their health and wellbeing and quality of life” (Department of Health, 2017)(p. 8). However, still nowadays, in Ireland, there is “‘widely-held, generalising, and unscientific position’ that illicit drugs are ‘bad’ and this informs a perception that people who use drugs are bad too” (Dillon, 2018. Pg.3).

It has frequently been mentioned that Ireland is considering adopting the Portuguese model of decriminalisation, including in a 2016 report of the Joint Committee on Justice, Defence and Equality and in the National Drug Strategy of 2017 (Department of Health, 2017). However, Ireland’s criminal law is still based on a mixture of constitutional and common law guides, some of which date back to the period before the Irish Free State, when Ireland was following the English criminal law (O’Donnell, 2005). Ireland’s criminal law is lacking sentencing guidelines that guide judges on what the most appropriate sentences are for the severity of a drug-related criminal offences, or the level of liability of the offender (O’Malley, 2013). A major consequence of being arrested or convicted of simple possession of drugs in Ireland is that the person receives a criminal record that may have to be disclosed under certain circumstances, such as applying for work (Hughes et al, 2018). This obviously enhances the already widely existing stigma about people with drug dependence.

- (2) According to Clancy and colleagues (2019) the development of nursing in addiction area in Ireland has not been well documented. In Ireland, general nurses, mental health nurses, intellectual disabilities nurses and midwives are working in drug and alcohol treatment centers, with no requirement on addiction education or training, and no standard qualification. There is also no national guidance available on this nursing role. Since 2006, with the publication of the existing mental health

policy “A Vision for Change”, people with addiction problems are not treated within the mental health system, but the responsibility for addiction treatment is shared between the social inclusion and primary care directorates. This influenced the role of nurses who work in addiction area. Clinical governance, remuneration, stability of employment, and career pathways for specialist nurses continue to be a source of concern in Ireland (Clancy et al, 2019).

- (3) As mentioned previously, one of VT’s risk factors is countertransference, which enhances nurses’ negative attitudes towards people who have addiction problems. Stigma, towards addiction and people who use drugs, is still a persistent issue among healthcare professionals in Europe, but in the last years, it has been broadly discussed in Ireland. There has been a long history of providing healthcare in Ireland by the voluntary and private sector, especially by catholic church-run organisations, who often worked in opposition to a medical model of recovery (Clancy et al, 2019). This influenced the population’s view of addiction. Stigma leads to discrimination and therefore negative behaviours in healthcare providers. There is a need for healthcare professionals and therefore nurses, “to be vocal in promoting evidence-based prevention, treatment, and harm reduction services so that health and safety are prioritised” (Dillon, 2018. Pg. 5). On behalf of CityWide Drugs Crisis Campaign, in 2018, the Minister of State for Health Promotion and the National Drugs Strategy, Catherine Byrne TD, launched a new campaign that focuses specifically on the issue of stigma called ‘Stop the Stigma: Addiction is a health issue not a crime’. The campaign overall aim was to challenge drug-related stigma.

### *The Netherlands*

The data analysed showed that the participants from the Netherlands experienced less total vicarious trauma ( $M = 30.6, SD = 5.6$ ) compared to other European countries. Only 61.5% of participant scored moderate/high score of VT. However, there was no significant correlation between the Netherlands and the other demographic aspects of the participants. There are no specific studies about vicarious trauma in the Netherlands nor

other indirect trauma phenomenon and this country. Within the Netherlands, there are differences from the other European countries, such as:

- (1) The national drug policy retains a policy of toleration. This “tolerance policy” or “policy of tolerance” (*gedoogbeleid*) demonstrates the Netherlands typically as a much more tolerant than most other countries. This was obtained by the Opium law, which is a section of the Dutch law that describes all illegal drugs since the late 20th century. Within this law, there is a legal distinction between the lower risk or of harm or/and addiction drugs called soft drugs and drugs with a high risk of harm or/and addiction called hard drugs. The “tolerance policy” means that the possession of soft drugs is a criminal offence but small quantities for personal consumption are permitted (source “Government of the Netherlands” website). The Netherlands is also providing medically supervised safe injecting centres for some time, whereas Ireland and the UK have yet to reach consensus on this (Clancy et al, 2019). Another difference with the other mentioned countries is that “although historically addiction treatment fell within the remit of mental health services, and although still broadly attached to the mental healthcare agenda in the Netherlands, addiction is viewed as “separate” in terms of healthcare planning and service provision” (Clancy et al, 2019. Pg 142).
- (2) The advanced healthcare system of the Netherlands is recognised globally. Nurses who work in addiction areas in the Netherlands are recognised as such with a proper title which is addictions nurse (post bachelor) and addictions specialist nurse, in Dutch “*verslavingsverpleegkundige*” meaning “addictions nurse.” The roles, tasks, and responsibilities of the “*verslavingsverpleegkundige*” are formalized in legal frameworks and are aligned with physicians and psychiatrists (Clancy et al, 2019). There are differences in the Netherlands, compared to Ireland for instance, in the number of nurses who work in the addiction area. In Ireland, there are between 55 and 200 nurses, compared to the Netherlands which sees circa 5,000 nurses working in addiction. There is apparently only one nurse who works as advanced nurse practitioners in Ireland, where in the Netherlands there are circa 200 nurses. There is no standard qualification to work in addiction, but there is national guidance available on the role. In addition, in 2016 a nationwide new curriculum for nurses was published which provided a new technology-based

healthcare programme. This new curriculum had a huge impact on the implementation of the technology-based healthcare in the education programme (Koster and van Houwelingen, 2017).

- (3) According to OECD Health Statistics 2021, the hospital nurses in the Netherlands earn significantly more than 10 years ago, than other European countries. During the data analysis in the first phase of this study it was possible to identify (significant correlation between VTS and VT-ORG) a higher score of vicarious trauma among nurses who are not provided with adequate and equitable salary and benefits (this is explored further in the next paragraph). However, according to a study by McHugh and Ma (2014) wages are important for nurses' wellbeing, but it is not as important as more favourable work environments and nurse staffing, which are associated with lower burnout, job dissatisfaction, and intent to leave.

In addition, Burri and Maercker (2014), study, recognised that the Netherlands was one of the European countries with the highest prevalence of post-traumatic stress disorder among their general population. Nurses, being part of the general population, could be suffering more from PTSD than the other country and therefore being more vulnerable to VT. However, there are no studies to be found about any correlation between vicarious trauma and the Netherlands. Further research is required to explore the reason of a lower vicarious trauma prevalence in the Netherlands.

### *Portugal*

Throughout the data analysis it was possible to identify Portugal's VTS total score of  $M=38.8$  ( $N=15$ ;  $SD=7.2$ ). 93.3% of Portuguese nurses fall in the moderate/high category of VT. Following the (1) differing national drug policies, (2) nursing educational system and (3) cultural and historical factors of Portugal.

- (1) Portugal is the first country in the European Union to decriminalise all drugs under a statute passed in 2000. Drug possession and drug usage are still legally prohibited in Portugal; however, violations of these prohibitions are exclusively administrative violations and are removed from the criminal process. This means

that “Police officers who observe drug use or possession are required to issue citations to the offender, but they are not permitted to make an arrest” (Connolly, 2009; pg 23). Trafficking of drugs remains prosecuted as a criminal offence.

- (2) Portuguese nurses are migrating to other European countries, as there is an increase in unemployment as a result of constraints on public services (Attree *et al.* 2011). According to a recent study on Portuguese nurses’ intention to leave their job, more than four out of ten nurses indicated that, if possible, they would leave their organisation the following year due to dissatisfaction (Leone et al, 2015). Its findings also highlighted that the actual workload and number of patients under the care of an individual Portuguese nurse can be considerably higher than in other European countries, enhancing the nurses’ job dissatisfaction and fatigue (Leone et al, 2015).
- (3) In the 1980’s the rate of HIV infection in Portugal became the highest in the European Union, in addition to this, the 1990’s confirmed alarming rates of overdose deaths and rising crime. In 2001, after the official beginning of the new drugs decriminalization strategy, the opioid crisis soon stabilised, and in the following years there were important drops in problematic drug use, blood borne viruses infection rates, overdose deaths, drug-related crime, and incarceration rates. Those remarkable changes could not have happened without a vast cultural shift, and a change in how the country’s population viewed addiction. People who have addiction problems have been actively destigmatized and decriminalized by Portugal’s population (Hughes and Stevens (2010).

### *United Kingdom*

The data analysed showed that the participants from the United Kingdom experienced the highest levels of VT (N= 4; M=44.2; SD= 3.0), compared to the other European countries. 100% of the UK nurses who participated to this research scored a moderate/high VT score.

- (1) Gathering clear information on UK’s national drug policy is a complex endeavour. It was possible to obtain information about the law regarding illicit substances. "Controlled substances" which are drugs considered addictive or dangerous in the UK, are regulated by law. The two key pieces of legislation that establish drug

offences in the UK are the 1971 Misuse of Drugs Act and the 2016 Psychoactive Substances Act. The first act, is the current law that classifies drugs in classes from A (the most highly regulated), B, and C. The national drug policy's strategy is divided into chapters detailing commitments on: reducing drug supply, treatment provision, demand reduction, and organisational management and evaluation. It is unlawful to supply or give away for free, produce, import, or export drugs controlled under the Acts. Ireland and the Netherlands have integrated alcohol within their overall drug policy strategy, unlike the United Kingdom which has published an independent strategy for alcohol. This lack of clear and easily accessible information on the UK's national drug policy suggests that UK's drug policy leans towards criminal justice approach rather than a health approach.

- (2) Evidence suggests that nurses in the United Kingdom have been working with problematic substance use for over six decades (Clancy *et al.*, 2019). The roles and scope of practice have been well described. In 1986 the Association of Nurses in Substance misuse (ANSA) was established. In 1997, this association published the "scope of practice document" outlining the role of the nurse (specialist assessment, management, and care of individuals with problematic use of psychoactive substances) (Clancy, 1997). However, According to Clancy and colleagues (2019) UK's nurses are not sufficiently prepared during their undergraduate education to work with alcohol and other drug use.
- (3) Drug-related deaths in the UK, particularly in Scotland, are at the highest level on record (Holland, 2020). It is clear that UK is facing severe challenges regarding addiction. Studies suggested that there is an unacceptably high proportion of National Health Service (NHS) staff experiencing negative impacts as a result of stress in the workplace, where chronic excessive workload has been identified as a key factor of burnout and staff shortages (Bailey, 2021). This was aggravated by the burden of the Covid-19 crisis (O'Dowd, 2021).

## Appendix 13 - Participants' coping mechanism categories

*Table 5 – Participants' coping mechanism categories*

<b>Personal hobbies</b>	<ol style="list-style-type: none"> <li>1. Books</li> <li>2. Farming activity (I consider myself lucky that I engage in farming activity more as recreational as opposed to commercial which serves me well as a diversion and keeps me together).</li> <li>3. Reading</li> <li>4. Fishing</li> <li>5. psychodrama</li> <li>6. Audio and Video Projects as a Part Time Job / Hobby</li> <li>7. "nada acupuncture" – translated from Portuguese = "nothing, acupuncture"</li> <li>8. Hobbies</li> <li>9. Art</li> <li>10. walking in nature</li> <li>11. I usually cope by doing pleasant relaxing things like gardening, hiking, reading, listening to music,</li> <li>12. Music and long showers to wash away the day.</li> </ol>
<b>Education</b>	<ol style="list-style-type: none"> <li>13. Teaching about the nursing expertise in addictions and writing about it.</li> <li>14. training-education, workshops</li> </ol>
<b>Alcohol</b>	<ol style="list-style-type: none"> <li>15. alcohol</li> <li>16. Few pints every day after work.</li> </ol>
<b>Self-care</b>	<ol style="list-style-type: none"> <li>17. In pre covid times, I worked as a barista at festivals and events all over the country. I used my Annual Leave. It provided a wonderful balance between the seriousness of my work and the fun that was had at these events. Even though there was a heavy presence of drug use at some festivals, it did not concern me at the time but inadvertently, it gave me great insight into drug trends etc. It is important to take Annual Leave. It is also important for staff like myself who have a mobile phone to turn it off. I have colleagues who don't do this. I always prioritize my lunch break and leave the building. I do not answer my mobile during my lunch break</li> <li>18. sabbatical and group attendance</li> <li>19. My own private faith plays a big part, I do not see it as mindfulness and you did not have it as a choice.</li> </ol>
<b>Own analysis</b>	<ol style="list-style-type: none"> <li>20. work on my self and my own analysis</li> </ol>

<b>Therapy</b>	<ul style="list-style-type: none"> <li>21. counselling</li> <li>22. Counselling</li> <li>23. My own analysis,</li> <li>24. I see a psychotherapist for personal therapy</li> <li>25. I regularly attend a counsellor</li> <li>26. Personal therapy</li> </ul>
<b>Peer support</b>	<ul style="list-style-type: none"> <li>27. Debriefing with colleagues</li> <li>28. debriefing,</li> <li>29. Humor, good staff team who share struggles and support each other.</li> <li>30. Colleague support and social gatherings</li> <li>31. Peer support</li> </ul>
<b>Sport/exercises</b>	<ul style="list-style-type: none"> <li>32. Exercise (three participants indicated this option)</li> <li>33. Coaching.</li> <li>34. Sport. (I'm over 30 hrs in this job and have seen a lot and unfortunately have become immune to it all).</li> <li>35. Dance</li> <li>36. Changed mode of transport to work from cycling to walking as city centre getting too hostile to cycle. Walking more laid back</li> </ul>
<b>Family and friends</b>	<ul style="list-style-type: none"> <li>37. family time</li> <li>38. socialising with friends and family etc</li> </ul>
<b>Tv</b>	<ul style="list-style-type: none"> <li>39. Comedy on T.V.,</li> <li>40. TV I watch lots of silly TV to distract myself</li> </ul>





## Appendix 15 - Chapter Extended Description

- A) Reached limits - When confronted regarding their personal limits and whether they had ever perceived reaching them, the participants offered different responses. While some participants reported never encountering the threshold of their limits during their work in the addiction field, those who did experience such challenges employed various strategies to mitigate negative emotions and sustain their positive engagement within this specialised area. Notably, two participants, who had less than 12 months of experience in the addiction field, unsurprisingly indicated that they had not encountered their limits. Sine, a Danish nurse with nearly one year of experience, affirmed that she had never sensed reaching her limits; nevertheless, she frequently contemplates the possibility of reaching them in the future *"(...) I wonder if that day will ever come because you- you get to see a lot of tough... you get- you get to see a lot of shit. Like it's- it's really rough sometimes. (...)"* (SINE, Pos. 82). Santiago, even expressed to feeling *"a lot happier."* (SANTIAGO, Pos. 446) since working in the addiction services. Similar to Santiago, Roisin felt quitting nursing *"when dealing with patient families that were not related to addiction, (...) And it was a stage where I was like, "I can't do this anymore."* (ROISIN, Pos. 91). Tiago, a Portuguese clinical nurse specialist with 10 years of experience, expressed that if he perceives himself nearing his breaking point in a particular situation with a patient, he recognises the importance of transferring the care of that individual to another nurse. This proactive measure aims to prevent the escalation of challenges and ensures the patient receives the appropriate attention (TIAGO, Pos. 385). Patrick also acknowledged that he has never felt the desire to quit the profession in the addiction field, and he explained why: *"I don't think I've ever reached... you know- I've nearly with some people. But no, I've never- um... and some people absorb more energy than- than others. There's definitely, there's no doubt about it. And some people have a bigger impact on myself."* (PATRICK, Pos. 118) Pedro mentioned that he didn't reach the limit yet, but he felt extremely tired: *"I'm extremely tired. (...) extremely, extremely tired both physically and mentally"* (PEDRO, Pos. 140). He also hinted that he felt like that since the Covid-19 pandemic started, and it was an accumulation of stress and demands of the job, rather than challenges in working with traumatised patients. However, the repercussions of reaching the limit have been described as having positive outcomes involving personal

coping techniques, such as education, taking time off and taking a step back. This relates back to Theme number one, as nurses reported growth and resilience while working in the addiction area. James, for instance, confessed that he did reach the limits while working in the addiction area, but not as a nurse, and that's why he decided to retrain as a nurse and continue working in the addiction field: *"(...) that was actually the reason for me to go back to college, and retrain as a nurse. Because I felt that at the point ... at that point, I was offering lots of support (...) but I- I felt stuck- I felt that I have nothing left to offer."* (JAMES, Pos. 50-54). Susan stated with casualness that she does indeed reach the limits at time *"(...) but I get over it fairly quickly. You know, after a good Sleep. Yeah. Or when I know I need time - time away. I know I need time -time off"* (SUSAN, Pos. 133). Harry also claimed that he thought he was approaching his limits at times, but he was always able to get back on track and work effectively in the addiction area: *"Yes (...) I can clearly state that I've retired four times in the last 12 years. And each of those four times I've retired, it's, well- some of it's been planned. But other times, also recently... last year was- was retirement because of pressures of work."* (HARRY, Pos. 66). Aoife explained that *"it's very difficult not to kind of reach your limit,"* (AOIFE, Pos. 126) when patients are verbally abusive toward the nurse. She expressed that she is able to cope with the rest of the challenges, but she felt like reaching the limits the times that patients have been insulting her in personal ways.

- B) Negative team members – those colleagues have been mentioned by some of the participants of being part of a challenging environment, that could potentially increase the negative consequences in working in such a demanding area. As it will be mentioned in theme three, teamwork is essential to build a safe organisation to prevent the development of vicarious trauma. Negative team members have been mentioned from several participants. Fionn reported that there was resistance from some staff members to move to a new building, because of a plausible fear of change. *"... we got a new premises, that was lovely, it was better for our clients (...). And it basically took a year for staff to agree to move into it. So, this building was ready to go for a year, because staff were just whinging about (...). But eventually, they just agreed to move in. So, there's a lot of resistance from staff to change."* (FIONN, Pos. 163). Sophie also expressed some negativity within the team, which would make her

confront some challenges. Her meaning of negative consequences would relate more on the team dynamic rather than challenges of working with trauma itself. *"If there's a negative kind of vibe with the staff, I am kind of, "I'm done. I'm out of here".* (SOPHIE, Pos. 183). She continues explaining that one team member particularly, who was in charge of discharging patients, wasn't supporting the members of the team, indifferent of *"the staff getting assaulted or whatever."* (SOPHIE, Pos. 201).

- C) Bringing work home – A challenging outcome associated with providing assistance to individuals who have experienced trauma is the ability to separate oneself from the difficulties faced by those individuals, thereby trying to avoid the inclination to carry those concerns and issues into one's personal life. As mentioned by Sophie, clinical nurse manager 2 with 20 years of experience: *"I'd say... if maybe- I might have taken 10 years to be able to recognise and see, "I can't do this yeah, that I can't take it personally or I can't change your situation" - probably took about 10 years or so to stop bringing stuff home."* (SOPHIE, Pos. 119). Santiago also gave a good metaphor on how to detach from work's worries and that is *"turn off the nurse in me"* (SANTIAGO, Pos. 382). The definition of detachment has been highlighted in the literature, as being a negative consequence of developing vicarious trauma. Unresolved vicarious trauma might result in detachment and emotional distancing from family and friends (Pearlman & Saakvitne, 1995; Vrkleviski & Franklin, 2008). However, nurses are encouraged to remain emotionally detached from patients' trauma, to avoid emotional involvement. However, this can be particularly challenging in the nursing practice because of the highly caring and compassionate nature of the job.
- D) Negative attitudes – Some studies have identified that nurses have negative attitudes towards patients with substance use problems (Miller *et al.* 2001; Room 2005; Corrigan *et al.* 2009; van Boekel *et al.*, 2013; Morgan, 2014; Tierney, 2016; Daibes *et al.* 2017). Some participants of this study also mentioned a sort of stigma before starting to work in the addiction area. This may have a substantial impact on nurses to develop unhealthy countertransference towards patients which is suggested as one of the numerous risk factors for developing vicarious trauma ((Neumann & Gamble, 1995; Sabin-Farella & Turpin, 2003). Tiago reported that *"I confess to- when I was young, I have some repulse with this area [sic.] ... uhm... I - I never consumed and uhm... I have uhm... lost some friends because they are – uhm in consummation [sic]... is a*

*very years ago.*" TIAGO, Pos. 284). Also Sophie, highlighted that she did have some stigma in the beginning of her career, but that changed when she started working as a nurse in the addiction area: *"(...) I actually- it was true, seeing them and seeing the families that I've got- they are not all bad ... that actually ... it was the first time I actually saw the person, not the addiction. So, it was from there- I kind of was more open minded."* (SOPHIE, Pos. 87). Another participant Roisin mention how her perspective on people who use substances changed during the years *"I know as- like a young 17 year old- a lot of us will be very quick to judge being like, "oh, my god, they're using heroin, how could they do this!" But then as you get older, like 10 years on - at 27, you, as you walk through life, you can see how easy it is to go down that path."* (ROISIN, Pos. 84). Negative attitudes and opinions are not limited to nurses; as Santiago points out, the general population is prone to judge and stigmatise people who use substances, as well as those who work to aid them *"There's so much as always- there's this stigma"* (SANTIAGO, Pos. 74).

## Appendix 16 - Statistical Correlations in VT-ORG - Identified Areas Associated with High VTS

(Note: \*Correlation is significant at the 0.05 level (2-tailed); \*\*Correlation is significant at the 0.01 level (2-tailed)).

VT-ORG areas Results	Sentences with significant statistical correlation
<b>AREA ONE- Leadership and Mission</b>	<p>-1 Leadership demonstrates a clear and decisive vision that supports and articulates the mission of the organisation (-.173*)</p> <p>-2 Leadership communicates clear and specific information on decision-making throughout the Organisation (-.231**)</p> <p>-3 Leadership proactively addresses vicarious trauma (-.182*)</p>
<b>AREA TWO- Management and Supervision</b>	<p>-1 Meetings with my supervisor provide a forum for addressing exposure to trauma. (-.192*)</p> <p>-2 Staff meetings are an opportunity to address topics related to vicarious trauma and stress management. (-.234**)</p> <p>- 4 My performance evaluation includes a discussion of Organisational and individual strategies to minimise risk for vicarious traumatization (-.183*)</p> <p>-5 My performance evaluation includes a discussion of employee contributions to a positive work environment (-.271**)</p>
<b>AREA THREE- Employee Empowerment and Work Environment</b>	<p>-1 My Organisation evaluates staff satisfaction, including job duties, Organisation policies, etc. (-.205*)</p>
<b>AREA FOUR- Training and Professional Development</b>	<p>-1 My Organisation provides training and education to all staff on work-related vicarious trauma and its impact on work performance (-.246**)</p> <p>-2 My Organisation provides training and education to all staff on strategies on how to address work-related stress and vicarious traumatization (-.220*)</p>
<b>AREA FIVE- Staff Health and Wellness</b>	<p>-1 My Organisation's policies and/or practices support family members of employees (-.190*)</p>

## **Appendix 17- Self-reflection Journey: My Odyssey in Addiction Nursing and Beyond**

As I delved deeper into my nursing education, I found myself drawn to the realm of mental health nursing during the final year of my bachelor's degree. However, the geriatric field, where I initially thought I might thrive, did not resonate with me as I had hoped. Despite this realisation, I remained open-minded, knowing that the right path would reveal itself in time. My nursing career began in 2014 as I was armed with the theoretical knowledge gained from my studies at an Italian university, I was eager to put my nursing skills into practice and make a meaningful difference in the lives of those in need.

In 2016, my life took an unexpected turn when I secured a position at an addiction centre located in the heart of Dublin. Stepping into this new environment, I was immediately captivated by the dynamic and complex phenomenon of addiction. However, what struck me most were three profound observations that left a lasting impression on my nursing career.

The first revelation was the stark contrast in the therapeutic relationship I shared with addiction patients compared to previous nursing encounters. Unlike the structured and straightforward care that I had been accustomed to, working with these highly traumatised individuals demanded a different approach. Nurses, including myself, found ourselves stripped of the familiar boundaries and exposed to the raw trauma experienced by our patients. I vividly recall one poignant moment when a woman bravely shared her deeply painful past with me, revealing the abuse she endured as a child. It was as if she was discussing the weather that day, and I was left emotionally shaken, unsure of how to respond compassionately while maintaining professional detachment. This encounter opened my eyes to the unique challenges of addiction care, where the patients' needs encompassed far more than physical ailments or routine medical procedures. It required a delicate balance of empathy and professionalism, leaving an indelible mark on my understanding of nursing.

The second observation was disheartening yet not entirely surprising. I witnessed a distressing trend of my colleagues resigning from their positions in the addiction centre

shortly after joining. Their premature departure, coupled with stories of their struggles, painted a picture of the immense emotional toll that addiction nursing could exact. Listening to the harrowing tales of patients battling both addiction and mental health issues took a toll on my colleagues, leading some to express a desire to return to a hospital setting where they felt more familiar and secure. They feared that their core nursing skills were slipping away, replaced by the challenges of addiction care, and the lack of organisational support or proper training to cope with the emotional weight of such experiences only amplified their struggles. Yet, and that was my third observation, even in the face of these difficulties, a few of us, including myself, found ourselves inexplicably drawn to this field, discovering a sense of growth and satisfaction in our roles that defied the odds.

My fascination with addiction and a burning desire to understand the "why" behind these disparate experiences led me to pursue a master's degree in addiction studies in 2018. This academic pursuit deepened my understanding of addiction as a complex interplay of biological, psychological, and social factors, but it did not fully satisfy my curiosity about the resilience exhibited by some nurses while others felt overwhelmed by their experiences.

It was during this time that I stumbled upon a concept that resonated deeply with my experiences and the experiences of my colleagues: vicarious trauma. As I delved into the literature, I realised that this phenomenon, which could occur among nurses in various specialties, might be especially prevalent in the context of addiction services.

Curiosity turned into conviction, and I knew that I had to explore this uncharted territory further. With a burning passion and a deep sense of responsibility to my nursing community, I embarked on my Ph.D. journey to uncover the prevalence and risk of vicarious trauma among nurses working in addiction services. Additionally, I sought to understand the possible link between effective leadership and its role in mitigating the impact of VT.

*This marks the end, yet, in essence, it is only the beginning.*