

**EXPLORING MIDDLE MANAGERS' LIVED EXPERIENCE OF
RESILIENCE IN RESPONSE TO GLOBAL CRISES: A
NEUROPSYCHOTHERAPY PERSPECTIVE**

by

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DECLARATION

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“Exploring middle managers’ lived experience of resilience in response to global crises: A neuropsychotherapy perspective”

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ABSTRACT

“EXPLORING MIDDLE MANAGERS’ LIVED EXPERIENCE OF RESILIENCE IN RESPONSE TO GLOBAL CRISES: A NEUROPSYCHOTHERAPY PERSPECTIVE”

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Global crises have become a defining feature of contemporary organisational life, placing sustained psychological and emotional demands on managers. Middle managers occupy a complex position between strategic leadership and operational execution, yet their lived experience of resilience during such crises remains largely underexplored. This study aimed to explore how middle managers experience and make sense of their resilience in response to global crises, through a neuropsychotherapy perspective.

A qualitative, exploratory research design was adopted, situated within an interpretivist paradigm. Semi-structured interviews were conducted with middle managers drawn from diverse organisational contexts. Data were analysed using a reflexive thematic analysis approach, enabling an in-depth exploration of participants’ subjective experiences and meaning-making processes.

The findings reveal resilience as a dynamic, embodied, and relational process, shaped by internal neuropsychological regulation, relational support, and contextual organisational factors. Participants described resilience as fluctuating over time, influenced by cumulative stress, identity, sense of self, and perceived containment within their organisational environments. The neuropsychotherapy lens provided a valuable framework for understanding how emotional regulation, cognitive appraisal, and relational safety interact in shaping resilient functioning during periods of sustained uncertainty.

The study contributes to the literature by offering a nuanced, psychologically informed understanding of managerial resilience in the context of global crises. Practically, the findings highlight the importance of organisational practices that support emotional regulation, relational safety, and reflective capacity among middle managers. Recommendations are made for leadership development, organisational support interventions, and future research.

KEYWORDS

Middle Managers; Managerial Resilience; Crisis Management; Neuropsychotherapy; Positive Psychology; Psychological Adaptability; Relational Dynamics; Basic Psychological Needs

ISIFINYEZO

“UKUHLOLA ISIPILIYONI ESIPHILWE NGABAPHATHI BEZINGA ELIPHAKATHI MAYELANA NOKUQINA NOKUBHEKANA NEZIMO EZINZIMA EKUPHENDULENI IZINHLEKELELE ZOMHLABA: UMBONO WE- NEUROPSYCHOTHERAPY”

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Izinhlekelele zomhlaba sezibe yisici esichazayo sempilo yenhlangano yanamuhla, futhi zibeka izimfuno eziqhubekayo ezingokwengqondo nezemizwa kubaphathi. Abaphathi bezinga eliphakathi basezikhundleni eziyinkimbinkimbi phakathi kobuholi bamasu nokwenziwa komsebenzi wansuku zonke; nokho, isipiliyoni sabo esiphilwe mayelana nokuqina nokubhekana nezimo ezinzima ngesikhathi salezi zinhlekelele sisacwaningwe kancane kakhulu. Lolu cwaningo lwaluhlose ukuhlola ukuthi abaphathi bezinga eliphakathi bakubona futhi bakunikeza kanjani incazelo ukuqina kwabo ekuphenduleni izinhlekelele zomhlaba, kusetshenziswa umbono we-neuropsychotherapy.

Kwasetshenziswa idizayini yocwaningo olusezingeni, ehlolayo, ebekwe ngaphakathi kwepharadigimu yokutolika. Izingxoxo ezinemibuzo evulekile kodwa ezinesakhiwo esithile zenziwa nabaphathi bezinga eliphakathi abavela ezimweni ezahlukene zenhlangano. Idatha yahlaziywa kusetshenziswa indlela yokuhlaziywa kwezindikimba ngokucabangisisa, okwenza kwaba nokwenzeka ukuhlola ngokujulile izipiliyoni zababambiqhaza nezindlela zabo zokwakha incazelo.

Imiphumela iveza ukuqina nokubhekana nezimo ezinzima njengendlela eguqukayo, ehlela umzimba futhi encike ebudlelwaneni; yakhiwa ukulawulwa kwangaphakathi kwezinqubo ze-neuropsychology, ukusekelwa kobudlelwano kanye nezici zenhlangano ezisemongweni. Ababambiqhaza bachaze lokhu kuqina njengento eguquguqukayo ngokuhamba kwesikhathi, ethonywa ukucindezeleka okuqoqekayo, ubuwena, ukuqonda umuntu anakho ngobuyena, kanye nomuzwa wokuvikeleka nokusekelwa ngaphakathi kwezindawo zabo zenhlangano. Umbono we-

neuropsychotherapy unikeze uhlaka olubalulekile lokuqonda ukuthi ukulawulwa kwemizwa, ukuhlola ngokomqondo nokuphepha kobudlelwano kusebenzisana kanjani ekwakheni ukusebenza okuqinile ngesikhathi sokungaqiniseki okuqhubekayo.

Lolu cwaningo lunezela emibhalweni yesayensi ngokunikeza ukuqonda okunemininingwane nokusekelwe kwezengqondo mayelana nokuqina kwabaphathi esimweni sezinhlekelele zomhlaba. Ngokusebenza, imiphumela igqamisa ukubaluleka kwemikhuba yenhlangano esekela ukulawulwa kwemizwa, ukuphepha kobudlelwano kanye nekhono lokucabangisisa kubaphathi bezinga eliphakathi. Kwenziwa izincomo mayelana nokuthuthukiswa kobuholi, izinhlelo zokusekela enhlanganweni kanye nocwaningo lwesikhathi esizayo.

AMAGAMA AYINHLOKO

Abaphathi bezinga eliphakathi; Ukuqina kwabaphathi; Ukuphathwa kwezinhlekelele; Neuropsychotherapy; Isayikholoji enhle; Ukuzivumelanisa nezimo ngokwengqondo; Amandla obudlelwano; Izidingo eziyisisekelo ezingokwengqondo

OPSOMMING

“'N VERKENNING VAN MIDDELBESTUURDERS SE GELEEFDE ERVARING VAN VEERKRAGTIGHEID IN REAKSIE OP GLOBALE KRISISSE: 'N NEUROPSIGOTERAPIE-PERSPEKTIEF”

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Globale krisis het 'n bepalende kenmerk van hedendaagse organisasie geword en plaas volgehoue psigologiese en emosionele eise aan bestuurders. Middelbestuurders beklee 'n komplekse posisie tussen strategiese leierskap en operasionele uitvoering, maar hul geleefde ervaring van veerkrachtigheid tydens sulke krisis bly grootliks onderverken. Hierdie studie het ten doel gehad om, vanuit 'n neuropsigoterapie-perspektief, te verken hoe middelbestuurders hul veerkrachtigheid in reaksie op globale krisis ervaar en betekenis daaraan gee.

'n Kwalitatiewe, verkennende navorsingsontwerp is gebruik, gesitueer binne 'n interpretivistiese paradigma. Semigestruktureerde onderhoude is gevoer met middelbestuurders uit uiteenlopende organisatoriese kontekste. Data is ontleed aan die hand van 'n refleksiwede tematiese analisebenadering, wat 'n diepgaande verkenning van deelnemers se subjektiewe ervarings en betekenisgewingsprosesse moontlik gemaak het.

Die bevindinge toon dat veerkrachtigheid 'n dinamiese, beliggaamde en relasionele proses is wat gevorm word deur interne neuropsigologiese regulering, relasionele ondersteuning en kontekstuele organisatoriese faktore. Deelnemers het veerkrachtigheid beskryf as iets wat oor tyd fluktueer en beïnvloed word deur kumulatiewe stres, identiteit, sin van die self en waargenome geborgenheid binne hul organisatoriese omgewings. Die neuropsigoterapie-lens het 'n waardevolle raamwerk gebied om te verstaan hoe emosionele regulering, kognitiewe beoordeling en relasionele veiligheid met mekaar interaksie het in die vorming van veerkrachtige funksionering tydens tydperke van volgehoue onsekerheid.

Die studie lewer 'n bydrae tot die literatuur deur 'n genuanseerde, psigologies ingeligte begrip van bestuursveerkragtigheid in die konteks van globale krisis te bied. Prakties beklemtoon die bevindinge die belangrikheid van organisatoriese praktyke wat emosionele regulering, relasionele veiligheid en reflektiewe kapasiteit onder middelbestuurders ondersteun. Aanbevelings word gemaak vir leierskapontwikkeling, organisatoriese ondersteuningsintervensies en toekomstige navorsing.

SLEUTELWOORDE

Middelbestuurders; Bestuursveerkragtigheid; Krisisbestuur; Neuropsigoterapie; Positiewe Sielkunde; Psigologiese Aanpasbaarheid; Relasionele Dinamika; Basiese Psigologiese Behoeftes

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LIST OF ABBREVIATIONS

ANS	Autonomic Nervous System
CNS	Central Nervous System
COVID-19	Coronavirus Disease 2019
DMN	Default Mode Network
HPA	Hypothalamic-Pituitary-Adrenal
INM	Integrative Neuropsychotherapy Model
PR6	Predictive 6-Factor Resilience Model
RAR	Relational Activation of Resilience
SNS	Sympathetic Nervous System
UNISA	University of South Africa

CHAPTER 1: SCIENTIFIC ORIENTATION TO THE RESEARCH

1.1 INTRODUCTION

This chapter establishes the scientific foundation of the study by outlining its context, rationale, and methodological approach. It begins by presenting the background and motivation for the research, emphasising the significance of resilience among middle managers during crises. The chapter then defines the research problem, highlighting the need for a neuropsychotherapy-based perspective in resilience research. Subsequently, it delineates the research objectives, paradigmatic orientation, methodological approach, and data collection strategies. The chapter concludes with an outline of the dissertation's overall structure.

1.2 BACKGROUND AND MOTIVATION

The rising frequency and complexity of global crises, such as the COVID-19 pandemic and the war in Ukraine, have profoundly disrupted organisations across the globe. These crises demand that leaders at all levels sustain resilience, adapt to volatility, and maintain operational continuity (Carleton et al., 2018).

Global disruptions have strained supply chains, transformed workforce structures, and accelerated digital innovation (OECD, 2023; World Economic Forum, 2022). The COVID-19 pandemic, for example, forced organisations to shift rapidly to remote work and adopt new operational models. Geopolitical tensions, including the Russia–Ukraine conflict, have introduced energy insecurity, financial volatility, and strategic uncertainty (OECD, 2023; Sheffi, 2020; World Economic Forum, 2022). These are not isolated incidents, but cascading stressors with lasting implications for organisational resilience.

Leadership demands intensify in such high-stakes environments. Senior and executive leaders are expected to make swift decisions, maintain stability, and support employee well-being under pressure (Hannah et al., 2009; Kaiser, 2020). However, existing literature primarily focuses on top leadership. Much less is known about the operational strain and psychological burden borne by middle managers, who are

tasked with translating executive strategy into frontline action (Avolio & Gardner, 2005; Teo et al., 2017).

Middle managers occupy a uniquely demanding position within organisational hierarchies. They are expected to balance strategic directives from senior leadership with the immediate and often urgent needs of their teams, despite lacking both the high-level authority of executives and the task-specific autonomy of frontline workers. This structural position exposes them to the direct operational impacts of crises while requiring them to maintain personal resilience and support the psychological well-being of their subordinates. Middle managers are tasked with translating executive strategy into actionable team directives, often amidst ambiguity, resource constraints, and elevated stress (Carleton et al., 2018).

Evidence suggests that during periods of organisational crisis, middle managers are essential in maintaining stability, continuity, and morale. They must implement evolving policies, navigate logistical disruptions, and manage the emotional climate of their teams (Teo et al., 2017). The shift to remote and hybrid work structures further complicates this role. Virtual leadership demands the ability to build trust, sustain engagement, and foster collaboration without the benefit of physical proximity, placing greater reliance on digital communication, emotional intelligence, and adaptive management (Neeley, 2021).

A critical component of their role is fostering psychological safety that implies a team climate in which individuals feel secure to speak up, ask questions, and voice concerns without fear of negative consequences. Crises often compromise this safety due to increased stress, job insecurity, and emotional fatigue. Middle managers are uniquely positioned to mitigate this risk by modelling transparency, empathy, and inclusivity (Edmondson & Lei, 2014; Newman et al., 2017). However, the cumulative demands of their role frequently go unrecognised, resulting in significant emotional and cognitive strain that is rarely addressed at the organisational level.

Resilience, once predominantly understood as a static, trait-based characteristic, is now widely regarded as a dynamic, context-dependent process. Early conceptualisations framed resilience as an inherent personal quality (Kobasa, 1979),

but contemporary research emphasises its emergent nature—shaped through adaptive coping, social support, and cognitive flexibility (Kalisch et al., 2017; Southwick & Charney, 2018). This shift from trait to process underscores the need to understand resilience as contextually embedded, particularly within organisational and relational systems under stress.

The COVID-19 pandemic, for instance, illustrated that people had to navigate virtual leadership, manage heightened anxiety among staff, and maintain team cohesion amid operational instability (Southwick & Charney, 2018). Recent resilience models emphasise the importance of recognising the biological underpinnings of resilience, which are critical to understanding the stress responses activated during crises (Feder et al., 2019).

Polyvagal Theory (Porges, 2021) offers important insight into these mechanisms by explaining how the autonomic nervous system (ANS)—particularly the vagus nerve—regulates emotional reactivity, social engagement, and perceptions of safety. This neurobiological lens highlights how middle managers' ability to remain regulated under pressure directly impacts their relational functioning and leadership capacity during crises.

To account for these complex interactions, an integrative framework is essential. Neuropsychotherapy offers such a model by synthesising psychological, relational, and neurobiological domains. Unlike traditional approaches that prioritise cognition or emotion in isolation, neuropsychotherapy addresses how stress physiology, autonomic regulation, and neuroplasticity influence psychological functioning and resilience (Rossouw, 2014a; Siegel, 2020). Central to this model is the fulfilment of four basic psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain regulation (Grawe, 2007; Rossouw, 2014a). When these needs are met, individuals are more likely to maintain adaptive functioning, even under prolonged stress.

1.3 PROBLEM STATEMENT

In organisational contexts increasingly characterised by global crises, resilience has emerged as a critical competency for effective leadership. While prior research has

explored how senior executives manage crisis response, high-stakes decision-making, and the maintenance of organisational stability (Avolio et al., 2009; Teo et al., 2017), the resilience of middle managers, who translate strategy into operational execution, remains underexplored (Carleton et al., 2018).

Existing literature on employee resilience in the workplace primarily emphasises cognitive and behavioural strategies, with limited attention given to the neurobiological mechanisms that support adaptive functioning under stress (Southwick & Charney, 2018). As a result, prevailing resilience frameworks may not adequately capture the multidimensional challenges that middle managers face during crises, including emotional regulation, stress reactivity, and relational dynamics.

This research addresses a significant gap by adopting a neuropsychotherapy perspective, which foregrounds the fulfilment or violation of core psychological needs—control and orientation, attachment, pleasure/pain regulation, and self-esteem—as foundational to resilience (Grawe, 2007; Rossouw, 2014a). Despite their relevance, these dimensions remain largely unexamined in the context of middle management during organisational crises.

Given these limitations in the current body of literature regarding middle managers' resilience during times of crises, this study aimed to answer the question: How do middle managers experience resilience during global crises?

The research aimed to answer the following theoretical questions:

- How is resilience conceptualised in the literature as a positive psychological construct?
- How does the neuropsychotherapy literature conceptualise resilience?
- What would an integrative conceptualisation of resilience entail?

The research aimed to answer the following empirical questions, regarding exploring middle managers' experience of the constructs that undergird resilience from a neuropsychotherapy perspective:

- What are managers' perceptions of relational support and belonging in times of crisis within organisational environments? How do managers experience maintaining control and orientation during global crises?
- How do managers sustain their sense of self?

- How do managers balance pleasure and pain to sustain personal and team resilience under prolonged adversity?

1.4 RESEARCH AIMS AND OBJECTIVES

This section will articulate the general objective of the study, the specific aims regarding the literature review and the specific empirical aims of the study.

1.4.1 General Objectives

The general objective of this study is to explore how middle managers experience resilience during global crises, through the lens of neuropsychotherapy. Specifically, the research investigates how the fulfilment or frustration of basic psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain regulation—shapes their capacity for resilience in high-pressure organisational contexts.

1.4.2 Specific Literature Aims

1. To conceptualise resilience from a positive psychology perspective
2. To conceptualise resilience from a neuropsychotherapy perspective
3. To provide an integrative conceptualisation of resilience

1.4.3 Empirical Aims

1. To explore middle managers' experiences of maintaining control and orientation during global crises.
2. To investigate middle managers' perceptions of relational support and belonging in times of crisis within organisational environments.
3. To examine how middle managers sustain their sense of self.
4. To explore how middle managers balance pleasure and pain to sustain personal and team resilience under prolonged adversity.

1.5 PARADIGM PERSPECTIVES

A paradigm perspective refers to the overarching set of beliefs, assumptions, and methodological approaches that inform how a research study is conceptualised and executed (Kuhn, 2012). It provides the foundational lens through which knowledge is constructed, guiding the selection of theoretical frameworks, research methodologies, and interpretive strategies. Establishing a clear paradigm perspective ensures

alignment between epistemological and ontological assumptions, thereby promoting methodological coherence and theoretical rigour (Creswell & Poth, 2018).

1.5.1 Disciplinary Paradigm

This study is situated within the disciplinary contexts of Industrial and Organisational Psychology (IOP) and applied neuroscience.

Industrial and Organisational Psychology is concerned with the application of psychological theories, principles, and methodologies to workplace settings in order to enhance employee performance, well-being, and organisational effectiveness (Riggio, 2017). Within IOP, employee wellness is a key sub-discipline that focuses on promoting psychological health in the workplace. It addresses issues such as stress management, work-life balance, and the cultivation of supportive organisational cultures to foster employee satisfaction and performance (Society for Industrial and Organizational Psychology, 2020). In this study, employee wellness is examined through the lens of positive psychology—a field that investigates human strengths, flourishing, and optimal functioning, with emphasis on constructs such as positive emotion, meaning-making, resilience, and psychological strengths (Seligman & Csikszentmihalyi, 2000).

Applied neuroscience refers to the practical application of neuroscientific research in real-world settings, providing an empirical basis to inform and refine psychological theories and practices. According to Waldman et al. (2011), applied neuroscience contributes a scientifically grounded framework to enhance psychological interventions targeting well-being, leadership, and performance by linking brain mechanisms to effective organisational functioning. In the South African context, Geldenhuys (2020) highlights how neuropsychotherapeutic models grounded in neuroscience can promote sustainable employee well-being in high-demand organisational environments.

Neuropsychotherapy, a subfield within applied neuroscience, is defined by Rossouw (2014a) as a therapeutic approach targeting the neural networks associated with memory, emotion, behaviour, and interpersonal functioning. Rooted in Grawe's (2007) foundational model, it emphasises the fulfilment of four core psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain regulation—as essential to achieving psychological integration and adaptive functioning.

Neuropsychotherapy promotes neuroplasticity through the creation of enriched environments that support the reorganisation and optimisation of neural pathways, ultimately enhancing psychological resilience.

There is growing recognition within IOP of neuropsychotherapy's value as a theoretical framework for advancing employee well-being. Geldenhuys (2020) argues that neuropsychotherapy offers an integrative, empirically grounded model aligned with IOP's emphasis on human flourishing, particularly within high-demand organisational contexts. By addressing both neurobiological and psychological determinants of human behaviour, neuropsychotherapy complements the goals of positive psychology and enables sustainable, systems-based well-being interventions. Its emphasis on relational and systemic dynamics makes it especially relevant to understanding resilience in complex workplace environments.

Together, these disciplinary paradigms offer a multidimensional framework for exploring resilience, integrating psychological, relational, and neurobiological perspectives.

1.5.2 Theoretical Paradigm

The theoretical paradigm guiding this study is anchored in interpretivism. Interpretivism posits that reality is not objective or fixed, but rather socially and contextually constructed. Understanding human behaviour therefore requires interpreting the meanings individuals assign to their experiences within specific cultural and situational contexts. This paradigm recognises that knowledge is co-created through the interactive relationship between the researcher and participants, and that subjective experiences are valid and essential sources of insight (Thanh & Thanh, 2015).

As a theoretical lens, interpretivism is particularly suited for exploring complex psychological constructs such as resilience, where individual perception, emotion, and contextual influence are central to meaning-making. This perspective allows for a nuanced understanding of how middle managers experience and respond to crises, informed by their personal narratives, socio-organisational environments, and internal psychological states.

The interpretive paradigm informed both the structure of the literature review and the formulation of the theoretical research questions. It also guided the methodological

choices made throughout the study, enabling an in-depth, meaning-oriented exploration of resilience as it is lived and experienced by middle managers during organisational crises.

1.5.3 Empirical Paradigm

The empirical paradigm of this study aligns with interpretivism, which posits that reality is not objective or singular, but socially constructed through individual and contextual experiences (Creswell & Poth, 2018). This worldview forms the foundation for the qualitative methodology employed to explore how middle managers understand and experience resilience during times of crisis.

Ontologically, this study adopts the assumption that reality is multiple and subjective. Resilience is not regarded as a universal or fixed attribute but rather as a fluid, context-sensitive phenomenon shaped by individuals' perceptions, organisational roles, and the dynamic conditions of crisis (Lincoln et al., 2018).

Epistemologically, knowledge is understood as co-constructed through interactive dialogue between the researcher and participants. The aim is not to uncover a single objective truth but to explore the nuanced meanings middle managers ascribe to their lived experiences (Creswell & Poth, 2018).

Methodologically, this interpretivist stance supports the use of qualitative, narrative inquiry. This approach facilitates rich, in-depth engagement with participants' personal stories, enabling insight into how resilience manifests and evolves within organisational crisis settings. It also embraces researcher reflexivity, recognising the interpretive role of the researcher in meaning-making (Braun & Clarke, 2019).

1.5.4 Meta-theoretical Concepts

The meta-theoretical concepts guiding this study include resilience, the Integrative Neuropsychotherapy Model (INM), Polyvagal Theory, and functional neural networks. These frameworks provide the foundational lenses through which the psychological, relational, and neurobiological aspects of resilience are interpreted.

1.5.4.1 Resilience

For the purpose of this study, resilience is defined as a dynamic and adaptive process underpinned by psychological, relational, and neurobiological mechanisms that enable

individuals to respond effectively to adversity (Feder et al., 2019; Southwick & Charney, 2018). Within the context of organisational crises, it refers specifically to the capacity of middle managers to sustain psychological well-being, adaptively fulfil their leadership roles, and navigate prolonged uncertainty.

This conceptualisation aligns with contemporary frameworks that move beyond trait-based understandings of resilience, framing it instead as a context-sensitive and developmental capacity shaped by internal resources and external conditions (Kalisch et al., 2017; Southwick & Charney, 2018). A comprehensive exploration of resilience—its evolution, core constructs, and relevance to crisis leadership—is provided in Chapter 2.

1.5.4.2 Integrative Neuropsychotherapy Model (INM)

This study is grounded in the INM, which serves as the central conceptual framework for examining resilience in middle managers. The model synthesises psychological, relational, and neurobiological dimensions of human functioning, with an emphasis on how these systems interact to promote adaptation, well-being, and functional regulation in high-stress environments (Rossouw, 2014a; Grawe, 2007).

Within the context of this research, the model is operationalised through four key domains explored in the literature review: (1) neurobiological mechanisms involved in stress and resilience, (2) the fulfilment or frustration of basic psychological needs, (3) relational and interpersonal dynamics, and (4) emotional regulation strategies. These domains collectively illuminate how resilience is shaped through continuous feedback loops between internal states and external contexts. A detailed exposition of the INM is presented in Chapter 2.

1.5.4.3 Polyvagal Theory

Polyvagal Theory, developed by Porges (2021), offers a neurophysiological framework for understanding how individuals detect and respond to cues of safety or threat through the ANS. Central to this theory is the role of the vagus nerve in modulating physiological states that underlie emotional regulation and social engagement. The theory delineates how the ventral vagal complex supports calm and connected states, while the sympathetic and dorsal vagal systems govern mobilising or immobilising responses to perceived danger.

In the context of this study, Polyvagal Theory provides critical insight into how middle managers regulate their stress responses and maintain relational safety during crises. It underscores the importance of neuroception—the brain’s subconscious detection of safety and threat—in shaping resilience and interpersonal effectiveness in high-stakes organisational environments.

1.5.4.4 Functional neural networks

The term “functional neural networks” are systems of interconnected brain regions that work collaboratively to regulate specific cognitive, emotional, and behavioural functions. Within the context of this study, three key networks are particularly relevant: the default mode network (DMN), the salience network (SN), and the central executive network (CEN). The DMN is primarily associated with self-referential thought and internal reflection and becomes more active during states of rest or introspection. In contrast, the SN plays a crucial role in detecting and prioritising relevant stimuli—both internal and external—by acting as a dynamic switch that determines whether attention should be internally focused (via the DMN) or externally oriented (via the CEN). The CEN, in turn, is responsible for goal-directed behaviour, cognitive flexibility, and working memory (Chand & Dhamala, 2016; Mbiyzenyuy & Qulu, 2024).

Together, these networks form the neurobiological foundation for adaptive functioning under stress. Their interplay directly influences emotional regulation and behavioural responses to adversity (Menon, 2011). In this study, these networks are explored in the context of middle management leadership during crises, where effective regulation of stress and emotion is critical to sustaining both personal and organisational resilience.

1.6 RESEARCH DESIGN

The research design adopted in this study is an exploratory research design, appropriate for investigating a phenomenon that is not yet extensively understood within the existing literature (Creswell & Creswell, 2018). An exploratory design was considered suitable as the study sought to gain an in-depth understanding of middle managers’ lived experiences of resilience during global crises, rather than to test predetermined hypotheses or establish causal relationships.

This design enabled the researcher to explore participants' subjective experiences, perceptions, and meaning-making processes within complex organisational contexts. The exploratory nature of the design aligns with the study's empirical aims and supports the generation of rich, nuanced insights into how resilience is experienced and sustained over time.

Furthermore, Chapter 3 outlines the research setting, the process of entrée and the researcher's role, the sampling strategy, and the procedures followed for collecting and analysing data. The chapter also details the measures taken to ensure data trustworthiness and the ethical considerations that guided the study.

1.7 CHAPTER LAYOUT

This dissertation is structured into six chapters, outlined as follows:

Chapter 1: Scientific orientation to the research

Chapter 1 introduces the background and motivation for the study, articulates the problem statement and research aims, outlines the paradigm perspectives, and details the research design.

Chapter 2: Conceptualising resilience from a positive psychology and neuropsychotherapy perspective

Chapter 2 presents an in-depth exploration of psychological and neurobiological resilience models, integrating these perspectives to develop a conceptual framework for the study.

Chapter 3: Research design and methodology

Chapter 3 elaborates on the research approach, strategy, and research method. The research method consists of the research setting, entrée and establishing the researcher's role, sampling, data collection and analysis methods. The strategies to ensure data quality and ethical considerations are also discussed in detail.

Chapter 4: Findings

Chapter 4 contains the empirical findings in accordance with the research questions and aims regarding middle managers' experience of their resilience during times of

crisis. The findings are presented thematically according to main- and sub-themes that emerged from the data analysis.

Chapter 5: Discussion, Contributions, limitations, and recommendations

Chapter 5 integrates the literature review and the empirical findings to provide a deep understanding and insight regarding how middle managers experience resilience during times of crisis, how they meet their basic psychological needs and regulate their ANS during prolonged adversity.

It also concludes the dissertation by discussing the study's contribution to theory and practice, the limitations of the study, and recommendations for future research and practical applications.

1.8 CHAPTER SUMMARY

Chapter 1 provided the scientific orientation of this study by introducing the research focus, background, and motivation. The problem statement outlined the research gap concerning middle managers' experiences of resilience during global crises, emphasising the need for an integrative approach incorporating neuropsychotherapy and positive psychology. The chapter further detailed the research objectives, including both literature and empirical aims. The paradigm perspectives and research design were discussed, highlighting the qualitative approach and thematic analysis methodology. The chapter concluded by providing an overview of the dissertation's structure, outlining the content of subsequent chapters. The next chapter provides a detailed discussion of the literature in alignment with the theoretical research questions.

CHAPTER 2: CONCEPTUALISING RESILIENCE FROM A POSITIVE PSYCHOLOGY AND NEUROPSYCHOTHERAPY PERSPECTIVE

2.1 INTRODUCTION

This chapter provides the theoretical foundation for understanding resilience in middle management in times of crisis. It begins by defining resilience, tracing its evolution from a static trait-based perspective to a dynamic, context-dependent process. Next, it explores resilience from a positive psychology perspective, highlighting strengths-based approaches that contribute to psychological adaptability and well-being. The chapter then examines resilience through a neuropsychotherapy lens, emphasising the interplay between psychological, relational, and neurobiological mechanisms. Lastly, the discussion highlights the strengths and limitations of these perspectives, laying the groundwork for a more comprehensive theoretical understanding of resilience in managers during global crises.

2.2 CONCEPTUALISING RESILIENCE

Resilience is a well-established construct across the fields of psychology, neuroscience, and leadership; widely recognised for its role in enabling adaptive functioning and recovery in the face of adversity (Fletcher & Sarkar, 2013; Kalisch et al., 2015; Southwick & Charney, 2018). Historically, resilience was conceptualised as a fixed, trait-based quality—an inherent personality characteristic that determined an individual's ability to cope with stress (Maddi, 2006). From this early perspective, individuals were viewed as either naturally resilient or vulnerable to stress. However, contemporary research has shifted toward understanding resilience as a dynamic, multidimensional process that emerges through the interaction of psychological, relational, neurobiological, and environmental influences (Kalisch et al., 2015; Luthar et al., 2000; Masten, 2014). This section traces the evolution of resilience theory—from its early static conceptualisations to more context-sensitive, process-oriented frameworks—by drawing on insights from positive psychology, neuroscience, and organisational leadership literature.

Early resilience theories primarily emphasised inherent personality traits and stable protective factors believed to equip individuals to withstand adversity. One influential example is Maddi's (2006) Hardiness Model, which posited that individuals displaying high levels of commitment, control, and a sense of challenge are more likely to exhibit resilience in the face of stress. In this view, resilience was regarded as an internalised capacity—largely stable across time and contexts—and relatively uninfluenced by external or environmental factors. As such, resilience was conceptualised as a trait-like attribute, inherent to some individuals more than others, rather than as a quality that could be developed or cultivated through experience.

Another influential contribution to early resilience theory is Richardson's (2002) Resiliency Model, which conceptualised resilience as a process of disruption and reintegration. According to this model, individuals respond to adversity by first experiencing a period of disequilibrium, followed by a reintegration phase during which they restore balance through the activation of protective factors. This model moved beyond static trait conceptualisations by introducing a dynamic sequence of psychological responses. However, despite its process-oriented framing, Richardson's model still lacked a clear account of how individual, relational, and environmental variables interact to influence resilience in varying contexts. These limitations contributed to the theoretical shift from resilience as a fixed capacity to more dynamic and interactive models, which view resilience as a malleable process shaped by both internal regulation and external support systems.

Over the past two decades, resilience research has increasingly shifted from trait-based to process-oriented conceptualisations (Luthar et al., 2015). In contemporary literature, resilience is defined as a dynamic and adaptive process through which individuals maintain or regain psychological functioning in the face of adversity (Fletcher & Sarkar, 2013). This definition emphasises that resilience is not a static personal attribute, but an evolving capacity shaped by situational demands, coping strategies, and the availability of external support systems (Rutter, 2012). Such a perspective underscores the interactive and context-dependent nature of resilience, highlighting the importance of both internal regulation and environmental resources in adaptive functioning.

Southwick and Charney (2018) extend this dynamic perspective by identifying key psychological capacities such as cognitive flexibility, emotional regulation, and relational support as foundational elements of resilience. These components align closely with the principles of positive psychology, which emphasise psychological strengths and adaptive functioning. Within this framework, resilience is not merely the ability to recover from adversity but the capacity to grow through it—supported by constructs such as optimism, self-efficacy, and cognitive reappraisal (Seligman, 2011). Fredrickson (2013) further asserts that resilience is cultivated through well-being-enhancing interventions and meaning-making processes that enable individuals to transform adversity into personal growth.

In organisational contexts, resilience is closely tied to psychological safety—a shared belief that individuals can speak up, take interpersonal risks, and engage in learning without fear of punishment or humiliation (Edmondson & Lei, 2014). Psychological safety creates an environment where open communication, mutual trust, and adaptive problem-solving are encouraged, all of which are vital for navigating crises. As Newman et al. (2017) highlight, such environments not only buffer the impact of stressors but also enhance leadership effectiveness by fostering team cohesion and resilience under pressure.

Beyond its psychological and relational foundations, resilience is increasingly recognised as a biologically grounded process, shaped by stress-response systems, neuroplasticity, and autonomic regulation (McEwen & Akil, 2020; Porges, 2021). From a neurobiological standpoint, resilience reflects the brain's capacity to regulate physiological responses to stress, restore equilibrium, and adapt to changing demands. Kalisch et al. (2015) define this capacity as the brain's ability to maintain or regain homeostasis through dynamic interactions between neurocognitive and affective systems—underscoring the central role of biological adaptability in resilient functioning.

A key neurobiological mechanism underlying resilience is the hypothalamic-pituitary-adrenal (HPA) axis, which plays a central role in the body's response to stress. Upon encountering a threat or challenge, the HPA axis initiates a cascade of hormonal signals—most notably, the release of cortisol—that mobilise the body and brain for adaptive action (Herman et al., 2016; Kim et al., 2022). This acute stress response

supports motivational schema that enhance short-term coping. However, prolonged or repeated activation of the HPA axis due to chronic stress can result in dysregulation, leading to elevated cortisol levels, heightened anxiety, emotional dysregulation, and impaired cognitive flexibility—all of which erode resilience (Kim et al., 2022; Sapolsky, 2015). Recent evidence by Lei et al. (2025) further shows that chronic HPA-axis hyperactivity induces neuroinflammation and structural changes in the hippocampus, a brain region critical for emotional regulation and memory, thereby compromising long-term psychological resilience.

Neuroplasticity—the brain’s capacity to reorganise itself by forming new neural connections—is increasingly recognised as a foundational mechanism of psychological resilience (Arden, 2019; Davidson & McEwen, 2012; Vega-Fernández et al., 2025). Contemporary research highlights that adaptive learning, emotional regulation, and sustained social engagement can enhance neuroplastic processes, thereby reinforcing the neural architecture associated with resilience. Vega-Fernández et al. (2025), in a recent comprehensive review, emphasise the roles of neurogenesis, synaptic plasticity, and neural circuit remodelling, particularly in buffering the effects of early-life stress. These mechanisms facilitate recovery and adaptation by supporting flexible responses to adversity. Complementary findings by Öner (2024) underscore that interventions such as consistent physical exercise and mindfulness meditation significantly enhance neuroplasticity, promoting emotional stability and stress recovery. These findings collectively affirm that resilience is not a static personal trait but an adaptive, neurobiologically-informed process shaped through lived experiences and enriched environments (Feder et al., 2019).

In leadership and organisational psychology, resilience is increasingly conceptualised as both an individual capability and a relational phenomenon (Van der Vegt et al., 2015; Yu & Xiang, 2025). Recent studies reinforce this dual perspective. Yu and Xiang (2025) demonstrate that transformational leadership plays a pivotal role in enhancing organisational resilience, which subsequently contributes to improved team innovation performance. Similarly, recent research by Xu and Wang (2020) indicates that shared leadership models foster employee resilience by cultivating supportive team dynamics and mutual accountability. These findings highlight the relational dimension of resilience within organisational systems. Middle managers, situated between strategic leadership and operational teams, are uniquely positioned within this dynamic. They

must navigate the demands of upper management while simultaneously supporting their teams, rendering them especially vulnerable to the pressures of crisis environments (Teo et al., 2017).

Emerging evidence suggests that adaptive leadership—characterised by cognitive flexibility, decisiveness, and relational trust—is a critical factor in fostering managerial resilience (Avolio & Gardner, 2005; Uhl-Bien et al., 2007). Complexity leadership theory supports this view, identifying flexibility, innovation, and relational intelligence as essential traits of adaptive leaders. These attributes enable leaders to navigate uncertainty and build organisational resilience in volatile environments. Complementing this, Ogunbukola (2024) highlights how adaptive leadership fosters decentralised decision-making and continuous learning, allowing organisations to remain agile and responsive to crisis-related challenges.

Psychological safety has also been recognised as a key contributor to team-level resilience. It supports collaborative problem-solving and buffers against the psychological strain of uncertainty by enabling open communication and emotional co-regulation (Edmondson & Lei, 2014). Taken together, these findings suggest that resilience in organisational contexts is not merely an individual trait, but rather an interactive process shaped by leadership practices, relational environments, and team dynamics (Newman et al., 2017). This systems-oriented perspective aligns closely with neuropsychotherapeutic models, which posit that resilience emerges through secure relational bonds, emotional self-regulation, and the formation of adaptive motivational schemas (Rossouw, 2014a).

This evolving conceptualisation of resilience lays the foundation for the sections that follow, which explore resilience through the lens of positive psychology (Section 2.3) and the Integrative Neuropsychotherapy Model (INM) (Section 2.4). Together, these frameworks provide a comprehensive understanding of how middle managers navigate adversity and sustain resilience during times of crisis.

2.3 PSYCHOLOGICAL CONCEPTUALISATIONS OF RESILIENCE: A POSITIVE PSYCHOLOGY PERSPECTIVE

From the perspective of positive psychology, resilience is understood as a multifaceted and dynamic capacity that enables individuals not only to adapt and recover from adversity but also to experience growth through it (Fletcher & Sarkar, 2013; Luthans et al., 2021). This perspective diverges from earlier trait-based models that positioned resilience as a stable, innate quality; instead conceptualising it as a process shaped by psychological strengths, contextual resources, and individual agency (Masten & Reed, 2020; Seligman, 2011). Contemporary positive psychology views resilience as integral to psychological well-being, underpinned by personal growth, optimism, and adaptive functioning across changing environments.

Positive psychology defines resilience as the capacity to harness psychological strengths, regulate emotional responses, and deploy adaptive coping mechanisms in response to adversity (Wissing et al., 2022). Crucially, resilience within this framework extends beyond simple recovery or a return to pre-stress functioning. It encompasses post-traumatic growth and the capacity for meaning-making, wherein individuals emerge from challenges with enhanced psychological adaptability and personal development (Tugade & Fredrickson, 2004).

Recent advances in third-wave positive psychology emphasise the necessity of viewing resilience as a systemic and culturally embedded phenomenon. Wissing et al. (2022) highlight that resilience is not solely determined by individual attributes but is also profoundly influenced by social environments, relational resources, and culturally shaped narratives that guide coping mechanisms and well-being processes. This relational perspective aligns closely with emerging models of leadership resilience, in which adaptive functioning is co-constructed through trust, interpersonal support, and the broader organisational culture.

Building on this systemic view, Wong (2023) broadens the conceptualisation of resilience through his Faith-Hope-Love Model of Mental Health and Total Well-Being (hereafter, Faith-Hope-Love Model). This spiritual-existential framework identifies faith (a sense of purpose and existential meaning), hope (a future-oriented sense of optimism), and love (relational care and connectedness) as foundational components of what he terms “spiritual-existential well-being” (Wong, 2023). These dimensions

serve as protective mechanisms in times of adversity and are particularly relevant to the psychological demands placed on middle managers navigating high-stress, crisis-driven environments.

This section examines key components of resilience as conceptualised within positive psychology, specifically self-efficacy, emotional regulation, cognitive flexibility, and meaning-making. These psychological strengths are foundational to sustaining resilience in leadership contexts, particularly under conditions of prolonged stress and uncertainty.

Self-efficacy, a foundational construct in resilience theory, refers to an individual's belief in their ability to influence outcomes and manage challenges effectively (Bandura, 1997; Luthans et al., 2021). High self-efficacy enhances perceived control, promoting proactive coping strategies, perseverance, and adaptive problem-solving (Maddux & Kleiman, 2016). In leadership settings, middle managers with strong self-efficacy are more likely to approach adversity with confidence, remain goal-focused, and sustain motivation despite uncertainty (Newman et al., 2014). This sense of control serves as a protective buffer against learned helplessness and supports emotional regulation, reinforcing resilience under sustained pressure (Deci & Ryan, 2010).

Cognitive flexibility—the capacity to reframe challenges, adjust to changing circumstances, and employ alternative problem-solving strategies—is a key component of resilience (Honra & Monterola, 2025; Kashdan & Rottenberg, 2010). This flexibility allows individuals to navigate adversity without becoming cognitively or emotionally overwhelmed (Kalisch et al., 2015). Emerging research reinforces this connection.

Fredrickson's Broaden-and-Build Theory of Positive Emotions (2013) suggests that positive emotional states expand individuals' cognitive and behavioural repertoires, enhancing their ability to adapt creatively and form supportive relationships—key components of resilience. This perspective aligns with emotional regulation frameworks that underscore the importance of mindfulness, acceptance, and positive reappraisal in sustaining psychological well-being during adversity (Tugade & Fredrickson, 2004). In leadership contexts, particularly for middle managers, effective emotional regulation plays a critical role in resilience by enabling stress management,

emotional composure, and the cultivation of psychologically safe team environments (Edmondson & Lei, 2014).

Positive psychology conceptualises resilience not merely as recovery from adversity but as a growth-oriented process that enables individuals to derive meaning and purpose from challenging experiences (Joseph & Linley, 2008; Tedeschi & Calhoun, 2019; Wissing et al., 2022). Central to this perspective is meaning-making—the cognitive process through which individuals reinterpret adversity as an opportunity for personal development and transformation (Park, 2013; Wong, 2023). Wong's (2023) existential model of well-being underscores the importance of purpose in sustaining resilience, particularly during prolonged stress or crisis. In leadership contexts, such as those faced by middle managers, meaning-oriented resilience enhances adaptive decision-making by aligning personal and organisational responses to adversity with broader goals and values (Luthans et al., 2021).

Psychological strengths such as self-efficacy, emotional regulation, and meaning-making do not operate in isolation; rather, they interact dynamically with neurobiological and environmental influences to shape resilience outcomes (Annisa et al., 2024; Feder et al., 2019; Masoom Ali et al., 2025; Van Zyl & Salanova, 2022; Wissing et al., 2022). This integrative understanding is supported by recent empirical findings. Annisa et al. (2024) demonstrated that emotional regulation and self-efficacy significantly contribute to academic resilience, illustrating how these psychological capacities are interlinked in adaptive functioning. Complementing this, Masoom Ali et al. (2025) found that psychological flexibility and emotional regulation mediate the effects of future anxiety, depression, and stress, reinforcing the view that resilience is a multifactorial and process-driven phenomenon.

Furthermore, Zhang et al. (2024) demonstrated in a large US cohort that psychological resilience traits, such as perseverance, calmness, sense of purpose, and self-reliance, were associated with significantly lower all-cause mortality in older adults, underscoring the long-term protective value of psychological strengths. These findings underscore the necessity of viewing resilience through a systemic lens that incorporates psychological, biological, and contextual dimensions.

These insights underscore the critical role of relational and systemic factors in shaping resilience. To capture this complexity, several integrative frameworks within the

positive psychology tradition have emerged. Models such as the Relational Activation of Resilience (RAR) by Teo et al. (2017), the Resilience Scale for Adults (RSA) by Friborg et al. (2006), and Wong's Faith-Hope-Love Model (2023) offer multidimensional approaches that bridge individual psychological strengths with social and existential dimensions. When applied to the context of middle managers navigating crisis leadership, these frameworks provide valuable perspectives on how resilience is activated and sustained through relational, cultural, and meaning-making processes. Each of these models is explored in detail in the sections that follow.

2.3.1 Relational Activation of Resilience (RAR) Model

The RAR Model, proposed by Teo et al. (2017), reconceptualises resilience as a dynamic, co-regulated process that is activated through interactions within one's social and organisational environment. This model departs from traditional intrapersonal perspectives by asserting that resilience is not merely an individual trait, but an emergent property fostered through relational connections, interpersonal trust, and shared meaning-making (Masten, 2021; Van Breda, 2018).

Central to the RAR Model is the notion that resilience is relationally activated—that is, an individual's ability to adapt to adversity is profoundly influenced by the quality of their social context. Psychological safety, emotional connectedness, and supportive relationships serve as key mechanisms through which resilience is cultivated and sustained (Luthar & Eisenberg, 2017). In this view, resilience is less about internal strength in isolation and more about interactive processes that unfold in connection with others.

Figure 2.1 illustrates the dynamic interface between internal psychological capacities, such as emotional adaptability and cognitive flexibility, and external relational resources, including team cohesion, trust, and psychological safety. These factors work in concert to support resilience, particularly in organisational settings where middle managers operate at the intersection of individual stress and collective demands.

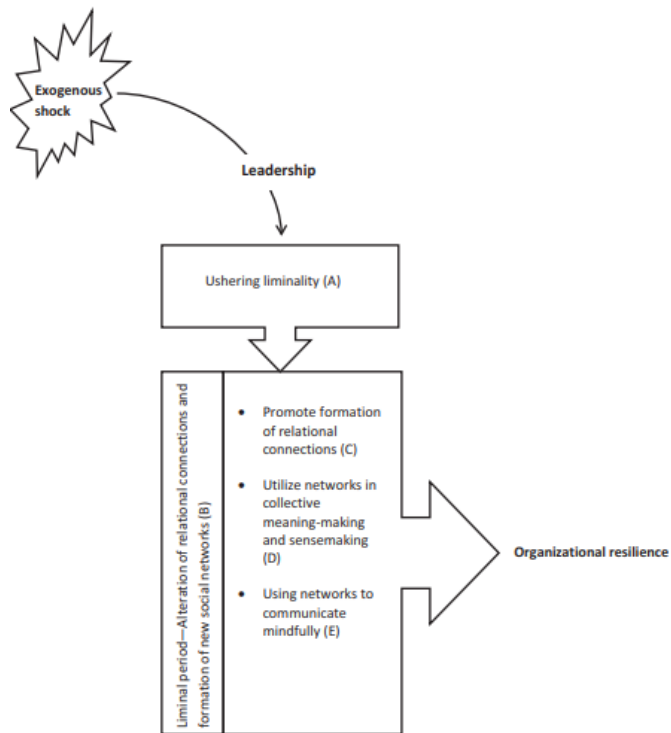


Figure 2.1 *The Relational Activation of Resilience (RAR) model (Teo et al., 2017)*

As illustrated in Figure 2.1, the RAR Model conceptualises resilience as a dynamic interplay between internal adaptive capacities and external relational resources.

These two key interdependent dimensions shape resilience in different; yet, complementary ways:

- **Internal adaptive capacities:** These refer to cognitive, emotional, and behavioural mechanisms that individuals use to navigate stress and uncertainty. These include self-regulation, problem-solving ability, emotional intelligence, and leadership self-efficacy (Masten, 2021). While these traits are essential, the RAR Model emphasises that they are not sufficient on their own.
- **External relational resources:** These include social support, team cohesion, psychological safety, mentorship, and trust-based organisational structures (Newman et al., 2017). The model suggests that the availability and quality of these relational resources directly influence an individual’s ability to sustain resilience.

Critically, the RAR Model emphasises that resilience is activated at the intersection of these two dimensions. An individual with high emotional intelligence and cognitive flexibility may still struggle if they lack relational trust or psychological safety.

Conversely, individuals with fewer internal resources may demonstrate resilience if embedded in a co-regulating, supportive social network (Teo et al., 2017). In this way, resilience is conceptualised not as an isolated individual attribute but as a socially embedded, co-constructed process—particularly salient in the complex, high-stakes environments occupied by middle managers.

The RAR Model highlights four interdependent mechanisms that contribute to the development and sustainability of resilience (Teo et al., 2017):

2.3.1.1 Ushering liminality

Liminality refers to periods of transition marked by uncertainty, disruption, or ambiguity—times when individuals or organisations are situated between a past that is no longer applicable and a future that has yet to be defined (Teo et al., 2017). Within the RAR Model, these liminal spaces are not merely disruptive but can act as catalysts for resilience. Navigating such thresholds requires individuals to suspend certainty and actively engage with their social context to construct new meanings and motivational frameworks.

For middle managers, ushering liminality involves embracing ambiguity while continuing to lead decisively. During major organisational transitions, such as restructuring, mergers, or crisis recovery, resilience is supported by actively seeking relational input. Engaging in collaborative dialogue, soliciting guidance from senior leadership, and fostering psychologically safe environments with their teams enable managers to process uncertainty more adaptively. These relational engagements function as stabilising anchors, helping managers co-construct meaning, sustain agency, and maintain emotional regulation amid organisational flux.

2.3.1.2 Promoting relational connections

Resilience, particularly in organisational contexts, is not solely an individual capacity but a socially embedded phenomenon. The RAR Model highlights that relational connections serve as essential co-regulatory systems, enabling individuals to share cognitive and emotional burdens in the face of adversity (Luthar & Eisenberg, 2017). These relational networks act as buffers against stress by facilitating shared understanding, mutual support, and coordinated responses to challenge.

For middle managers, promoting relational connections involves actively cultivating trust, empathy, and collaboration across hierarchical and peer relationships.

Establishing strong mentorship ties, peer alliances, and cohesive team dynamics enhances a manager's capacity to manage uncertainty and sustain emotional balance. Leaders who foster psychological safety, where team members feel secure to voice concerns and take interpersonal risks, create an organisational culture in which resilience is more likely to emerge and be sustained. In this way, relational connection is not merely supportive but foundational to resilience in times of crisis.

2.3.1.3 Utilising networks in collective meaning-making

Meaning-making is a central mechanism through which individuals and teams interpret and adapt to adversity. The RAR Model underscores that resilience is not only an intrapersonal process but also a collective one, where social networks play a pivotal role in shaping how challenges are understood and navigated (Masten, 2021). When teams engage in collective meaning-making, they co-construct narratives that reframe uncertainty as a potential for growth, learning, and transformation.

Middle managers are uniquely positioned to facilitate this process. By encouraging open dialogue, reflective discussions, and collaborative problem-solving, they help embed a shared understanding of adversity within the team. This interpretive coherence fosters psychological stability, reinforces team cohesion, and enables more adaptive responses. In this way, collective meaning-making strengthens resilience not only at an individual level but across the broader organisational system.

2.3.1.4 Using networks to communicate mindfully

Mindful communication is a foundational element of resilience within the RAR Model, facilitating trust, psychological safety, and relational regulation. Effective communication enables individuals to articulate concerns, seek feedback, and engage in collaborative decision-making during periods of uncertainty or stress. From a neurobiological perspective, transparent dialogue enhances co-regulation by reducing perceived threat, consistent with the principles of Polyvagal Theory, emphasising the role of safety and social engagement in emotional regulation (Edmondson, 2019; Porges, 2021).

For middle managers, mindful communication entails not only conveying information clearly but also listening actively, acknowledging emotions, and creating a space where team members feel heard and supported. Open conversations about stress, ambiguity, or role demands contribute to a psychologically safe environment, where

adaptive coping is collectively reinforced. When communication is anchored in empathy and mutual trust, resilience is strengthened across both individual and group levels.

These relational mechanisms—ushering liminality, promoting interpersonal connections, meaning-making, and mindful communication—are not isolated but interdependent. Together, they create a feedback loop that fosters adaptability, coherence, and sustained resilience in the face of adversity (Teo et al., 2017).

This relational conceptualisation of resilience sets the stage for the next section, which introduces the Resilience Scale for Adults (RSA)—a multidimensional psychometric framework designed to assess both individual and interpersonal components of resilience.

2.3.2 Resilience Scale for Adults (RSA)

The RSA is a well-established psychometric instrument developed by Friborg et al. (2003, 2005) to assess the protective factors that support resilience in adulthood. Rooted in the principles of positive psychology, the RSA shifts the focus from pathology and vulnerability to strengths and adaptive capabilities. Rather than diagnosing deficits, the RSA evaluates how individuals draw upon psychological, social, and environmental resources to cope effectively with adversity (Friborg et al., 2006; Windle et al., 2011).

This strengths-based orientation aligns with the theoretical aims of this study, as it provides a nuanced view of resilience that incorporates personal competencies, relational resources, and structured coping strategies. Southwick and Charney (2018) emphasise that resilience is a multidimensional construct—an assertion reflected in the RSA's framework, which highlights both internal self-regulatory mechanisms and external sources of support.

The RSA comprises six core dimensions that contribute to an individual's capacity for resilience across various life contexts. These dimensions reflect the interaction between intrapersonal strengths, interpersonal dynamics, and future-oriented behaviours, offering a comprehensive structure for understanding how resilience manifests, particularly in leadership roles during times of crisis (Friborg et al., 2006).

2.3.2.1 Perception of self

The first dimension, *perception of self*, reflects an individual's self-efficacy, emotional stability, and confidence in their capacity to manage adversity (Friborg et al., 2006). Individuals who score highly on this dimension typically demonstrate effective emotional regulation, reduced psychological distress, and a strong internal locus of control. A positive self-perception has been consistently associated with psychological hardiness, enabling individuals to remain persistent and composed in the face of challenges (Masten, 2014). This inner confidence forms a foundational component of resilience, particularly for leaders who must maintain clarity and direction during organisational crises.

2.3.2.2 Planned future

The planned future dimension reflects an individual's capacity to set realistic goals, sustain motivation, and maintain a constructive outlook toward what lies ahead (Friborg et al., 2006). This future orientation functions as a psychological buffer, enhancing resilience by anchoring individuals in purpose and direction during periods of uncertainty (Seligman, 2011; Windle, 2011). Individuals who consistently engage in goal-directed behaviour are more likely to demonstrate adaptive coping, as structured planning helps reduce anxiety and fosters a sense of control amidst disruption (Southwick & Charney, 2018).

Recent findings suggest that future-oriented thinking not only enhances resilience but is also linked to post-traumatic growth, enabling individuals to find meaning in adversity and rebuild with renewed purpose (Tedeschi & Calhoun, 2019). For middle managers navigating organisational crises, this dimension is particularly relevant—the ability to remain future-focused enables them to guide teams strategically, maintain morale, and adapt to evolving challenges without losing sight of long-term objectives.

2.3.2.3 Social competence

Social competence, a core dimension of the RSA, refers to an individual's ability to engage effectively in interpersonal interactions through emotional intelligence, empathy, and adaptability (Algoe, 2013; Fredrickson, 2013). Individuals with high social competence are typically skilled at reading social cues, managing interpersonal dynamics, and maintaining supportive relationships—all of which are essential for resilience. This dimension is particularly important in leadership contexts, where the

ability to navigate team dynamics, mediate conflict, and foster psychological safety can significantly influence organisational outcomes (Luthar & Eisenberg, 2017).

Masten (2021) highlights that socially competent individuals are more likely to mobilise support networks during adversity, enhancing their capacity to adapt and sustain psychological well-being. Supporting this view, De Terte and Stephens (2014) emphasise that social support and adaptive interpersonal skills function as key protective factors that moderate stress and facilitate recovery. For middle managers who operate at the nexus of operational execution and team cohesion, social competence is an essential driver of resilient leadership during crises.

2.3.2.4 Family cohesion

The family cohesion dimension reflects the extent to which secure attachment relationships and supportive family dynamics contribute to an individual's resilience. Foundational research has long established that early attachment experiences play a critical role in the development of emotional regulation and stress recovery mechanisms (Masten, 2014).

Individuals who report high levels of family cohesion tend to possess stronger coping strategies, enhanced emotional stability, and a reinforced sense of belonging—factors that serve as psychological buffers during adversity (Friborg et al., 2006). Recent studies support this perspective, emphasising that sustained familial support contributes significantly to stress mitigation and long-term resilience, particularly in high-pressure contexts such as leadership (Walsh, 2021). For middle managers, the ability to draw strength from familial bonds can enhance their capacity to remain composed and psychologically resilient when navigating complex organisational crises.

2.3.2.5 Social resources

Social resources extend beyond immediate familial support to encompass friendships, professional networks, mentorship structures, and broader community engagement. This dimension recognises the importance of interpersonal environments in facilitating resilience, particularly during periods of stress or crisis (Van der Vegt et al., 2015). Research consistently shows that individuals with well-developed social networks are better positioned to manage adversity, as access to emotional validation, collaborative

problem-solving, and informational support plays a critical role in adaptive coping (Southwick & Charney, 2018; Windle et al., 2011).

More recent findings reinforce this relational understanding of resilience. Kahn (1990) emphasised that the quality of peer relationships significantly influences psychological safety and engagement in high-pressure environments. Similarly, Ozbay et al. (2007) found that social support acts as a protective factor, mitigating stress and enhancing psychological well-being. For middle managers, access to trusted colleagues, peer mentoring, and interdepartmental collaboration offers a vital source of resilience, enabling them to navigate role-related challenges with greater confidence and support.

2.3.2.6 Structured style

The structured style dimension reflects an individual's ability to organise, plan, and execute effective coping strategies during periods of uncertainty or adversity. It encompasses self-discipline, time management, and proactive problem-solving—traits that are particularly critical for maintaining functionality in high-demand environments (Deci & Ryan, 2000). Individuals who score highly in this domain tend to demonstrate cognitive flexibility, adaptive planning, and an ability to respond to disruption with goal-oriented behaviours (Masten, 2014).

In organisational contexts, structured style has been linked to effective stress regulation and decision-making under pressure (Windle, 2011). For middle managers, these traits become especially salient, as they must continuously balance operational responsibilities with leadership demands during crises. High levels of structured coping have been shown to promote stability, maintain performance, and mitigate emotional exhaustion in volatile work environments (Teo et al., 2017).

The RSA, through this dimension, offers a lens to understand how middle managers navigate adversity, not only through emotional insight or social resources, but also by applying deliberate, methodical approaches to complex problems. Luthans et al. (2006) and Southwick and Charney (2018) found that structured styles are predictive of sustained leadership effectiveness, especially in contexts requiring adaptive performance.

Recent research supports the application of resilience-based frameworks in leadership development. For example, Van Wyk and Rothmann (2019) found that authentic leadership and psychological capital were associated with increased

organisational commitment and well-being. Moreover, Cameron et al. (2011) argue that leaders who combine structured thinking with emotional intelligence foster a culture of trust, engagement, and shared purpose—critical elements for collective resilience.

While the RSA provides a robust psychometric framework for assessing personal and social dimensions of resilience, emerging models within third-wave positive psychology—such as Wong’s Faith-Hope-Love Model—extend this understanding by integrating spiritual and existential domains, offering a deeper insight into how meaning, purpose, and connection reinforce resilience during prolonged crises.

2.3.3 Faith-Hope-Love Model of Resilience

Wong’s (2023) Faith-Hope-Love Model provides a robust spiritual-existential framework. The model identifies three foundational protective factors—faith, hope, and love—as critical for fostering resilience through the cultivation of existential meaning and moral orientation. In this framework, faith signifies a sense of spiritual grounding or higher purpose; hope involves a forward-looking belief in positive outcomes despite adversity; and love embodies relational connectedness, compassion, and the capacity to both offer and receive support.

Wong (2023) emphasises that these three elements—faith, hope, and love—interact synergistically to cultivate psychological resilience by enabling individuals to transcend suffering, derive meaning from adversity, and maintain emotional equilibrium. In contrast to traditional psychological frameworks that prioritise cognitive and emotional adaptability, the Faith-Hope-Love model incorporates spiritual and moral dimensions. This integrative approach broadens the conceptual scope of resilience, offering particular relevance in complex, high-stakes environments where existential clarity and ethical grounding are essential.

For middle managers navigating organisational crises, the Faith-Hope-Love model offers particular relevance. Faith provides direction and moral clarity in decision-making, serving as an internal compass amidst ambiguity (Wong, 2023). Hope sustains motivation and future-oriented optimism, buffering against despair in periods of uncertainty (Seligman, 2011; Wong, 2023). Love reinforces team cohesion, interpersonal trust, and relational support—elements essential to resilient leadership (Edmondson & Lei, 2014; Wong, 2023). By integrating these existential dimensions,

the model supports a more holistic and culturally inclusive understanding of how individuals derive psychological strength and transformative growth from adversity.

By integrating third-wave positive psychology with spiritual-existential well-being frameworks—exemplified by the RAR, RSA, and Faith-Hope-Love models—resilience theory extends beyond its traditional psychological boundaries. It now acknowledges that adaptive capacity is not merely an internal process but one deeply embedded in relational dynamics, cultural identity, and existential meaning (Wissing et al., 2022; Wong, 2023). This expanded view aligns with emerging relational resilience frameworks (Luthar & Eisenberg, 2017) and organisational well-being models (Newman et al., 2017), which argue that resilience is co-constructed within social systems and cannot be reduced to individual traits alone.

While these models provide critical insights into individual and relational dimensions of resilience, they do not fully encapsulate the physiological processes that underpin stress response and recovery—factors essential to sustaining resilience over time (Kim et al., 2022; McEwen & Akil, 2020). The subsequent section therefore shifts the focus to neurobiological perspectives, offering a deeper understanding of the foundational mechanisms that enable middle managers to maintain performance, adaptability, and well-being in high-pressure environments.

2.4 NEUROPSYCHOTHERAPY PERSPECTIVES ON RESILIENCE

Resilience is a dynamic and multidimensional process shaped by the continuous interaction between biological, psychological, and social mechanisms (Engel, 1977; McEwen & Akil, 2020). The INM, developed by Rossouw (2014a), offers a comprehensive framework that bridges neuroscience and psychotherapy, providing insight into how neurobiological, relational, and psychological factors collectively contribute to adaptive functioning under stress. Unlike traditional resilience models that primarily focus on cognitive or emotional regulation, the INM incorporates mechanisms such as stress recovery, autonomic regulation, and neuroplasticity through attending to the basic psychological needs, to explain how individuals sustain resilience in high-pressure environments (Grawe, 2007; Rossouw, 2014a).

Figure 2.2 illustrates Rossouw's (2014a) Integrative Model of the Base Elements of Neuropsychotherapy, highlighting how these fundamental psychological needs interact within a neural and relational framework to support adaptive functioning.

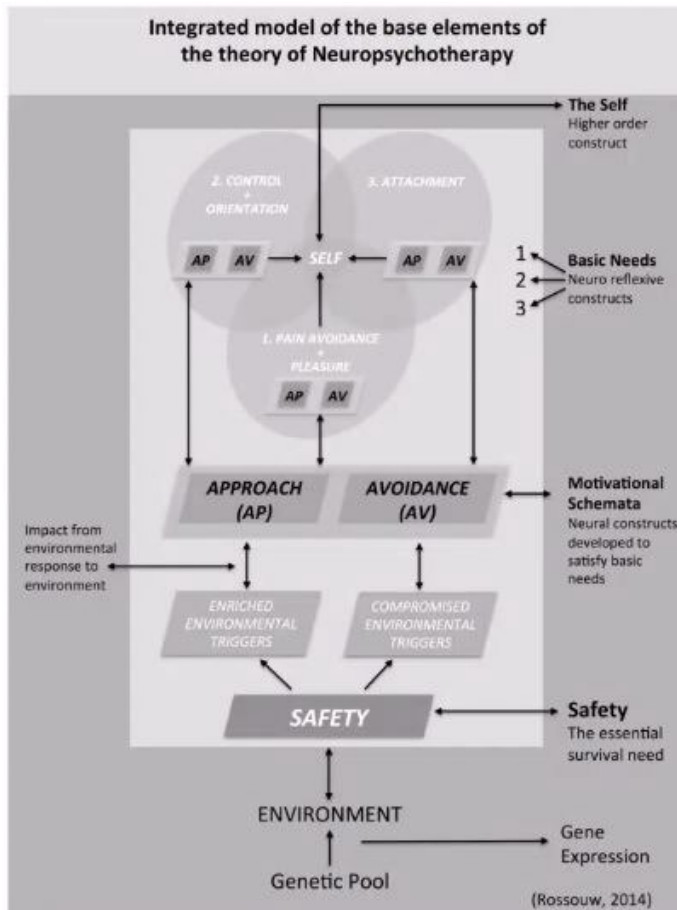


Figure 2.2: *Integrative Model of the Base Elements of Neuropsychotherapy (Rossouw, 2014a)*

The INM is grounded in the premise that psychological resilience is sustained through the regulation of neural systems involved in emotional, cognitive, and relational functioning. This perspective reflects several neuroscientific theories. Polyvagal Theory (Porges, 2021) underscores the role of neuroceptive safety and social engagement in regulating stress responses and fostering resilience. Neuroplasticity research (Davidson & McEwen, 2012; Vega-Fernández et al., 2025) highlights the brain's ability to reorganise in response to relational and emotional experiences, reinforcing adaptive coping mechanisms. Additionally, HPA axis regulation (Herman et al., 2016; Kim et al., 2022; Sapolsky, 2015) explains how chronic stress disrupts homeostasis, impairing emotional regulation and cognitive flexibility—two essential components of resilient functioning.

By integrating these neuroscientific insights, the INM bridges the gap between psychological resilience and its biological foundations, offering a holistic framework that complements positive psychology's emphasis on strengths and adaptability. This biopsychosocial integration is particularly relevant for middle managers, who must regulate both internal and relational demands in high-stakes environments. In the sections that follow, the elements of the INM and their relationships will be unpacked, starting from the bottom of the model (see Figure 2.2).

2.4.1 The Environment and Safety

The environment plays a pivotal role in the development and expression of resilience, particularly through its interaction with genetic predispositions and the ANS, which collectively shape adaptive regulation (Arden, 2019; Rossouw, 2014). From a neuropsychotherapeutic perspective, resilience is not solely an internal trait but a function of an individual's ongoing interaction with their environment. These interactions influence the formation of neural pathways involved in stress appraisal, coping, and emotional regulation.

Understanding the intersection of environmental context, Polyvagal Theory (Porges, 2021) and stress-response mechanisms provide a foundational lens through which motivational schemas are formed. These schemas determine how individuals interpret and respond to threats or challenges to their core psychological needs. Environments can be broadly classified as either compromised or enriched—a distinction drawn from Grawe's (2007) neuropsychotherapeutic framework. Compromised environments are characterised by unpredictability, insecurity, or threat, which can lead to maladaptive coping patterns and dysregulated stress responses. In contrast, enriched environments promote safety, relational security, and autonomy—conditions that foster neuroplasticity, psychological growth, and resilient functioning.

A compromised environment, as outlined by Rossouw (2014a), is one marked by chronic stressors, relational instability, and inadequate support systems. These conditions undermine the perception of safety, triggering persistent activation of the limbic system and leading to dysregulation in the ANS. As a result, individuals may fluctuate between hyperarousal (e.g., anxiety, vigilance) and hypo-arousal (e.g., emotional numbness, withdrawal), both of which impair adaptive coping and obstruct the fulfilment of basic psychological needs such as attachment, control, and self-worth.

Over time, this neural dysregulation compromises resilience by reinforcing maladaptive motivational schemas.

In contrast, an enriched environment fosters a sense of psychological safety, nurtures secure interpersonal relationships, and provides opportunities for mastery, autonomy, and growth. Rossouw (2014a) emphasises that such environments are conducive to neuroplasticity, enabling the formation of new, adaptive neural circuits. These enriched contexts support the satisfaction of core psychological needs—attachment, control and orientation, pleasure-pain regulation, and self-enhancement—thereby enhancing emotional regulation, psychological stability, and long-term resilience. Within organisational settings, particularly in middle management, enriched environments are critical for sustaining motivation, fostering trust, and navigating prolonged periods of uncertainty and stress.

According to Polyvagal Theory, the ANS constantly evaluates environmental cues for signs of safety or threat through a subconscious process known as neuroception (Porges, 2021). This neurobiological mechanism determines whether the body engages in a state of social engagement and regulation or shifts toward defensive survival responses. When cues of safety are perceived, the ventral vagal branch of the parasympathetic nervous system is activated, fostering calm, trust, and connectedness—conditions essential for emotional regulation, cognitive flexibility, and relational resilience (Dana, 2018).

Conversely, when safety is compromised, the ANS may activate the sympathetic nervous system, leading to fight-or-flight responses such as hypervigilance, impulsivity, or emotional dysregulation. In more extreme cases, the dorsal vagal pathway may trigger a freeze response, characterised by disengagement, emotional shutdown, or dissociation. These defensive states disrupt executive functioning, compromise relational trust, and diminish an individual's capacity for adaptive leadership—especially under prolonged stress. For middle managers, whose roles demand interpersonal regulation, strategic clarity, and emotional composure, understanding and managing these physiological states are crucial for sustaining resilience in high-pressure environments.

Closely aligned with Polyvagal Theory, the Window of Tolerance Model (Siegel, 1999, 2020) conceptualises resilience as the capacity to operate within an optimal zone of

physiological and emotional arousal. Within this window, individuals are able to think clearly, regulate emotions, and respond flexibly to challenges. However, when stress exceeds this threshold, individuals may shift into hyperarousal (marked by anxiety, irritability, or impulsivity) or hypo-arousal (characterised by numbness, dissociation, or emotional shutdown), both of which impair effective functioning.

The development of resilience involves learning to recognise and regulate these states, thereby maintaining adaptive functioning within the “window of tolerance”. This is especially relevant for middle managers, who are frequently required to remain emotionally composed, make high-stakes decisions, and support others under pressure. Through techniques such as mindfulness, grounding, and relational co-regulation, individuals can expand their window, increasing their tolerance for stress and uncertainty while preserving clarity, empathy, and leadership capacity (Siegel, 2020; Dana, 2018).

In middle management roles, sustaining a sense of neuroceptive safety is essential, as managers often act as emotional stabilisers within their teams. When the environment is perceived as unsafe—due to factors such as organisational volatility, role ambiguity, or prolonged crisis—managers may experience chronic activation of the stress response system. This perception of threat impairs self-regulation, diminishes cognitive flexibility, and compromises leadership effectiveness.

Prolonged exposure to such conditions without sufficient recovery can result in dysregulation of the HPA axis, leading to elevated cortisol levels, emotional exhaustion, and eventual burnout (Herman et al., 2016; Sapolsky, 2015). The neurobiological consequences of sustained stress undermine not only emotional resilience, but also key executive functions required for decision-making, empathy, and relational leadership. Thus, the ability to perceive and create safety—both internally and within one’s environment—is foundational to resilience in middle management contexts.

Psychological safety originates from neuroceptive safety, serving as a crucial moderating factor in the development of resilience. Defined as the shared belief that individuals can express thoughts, concerns, and emotions without fear of reprisal, psychological safety has been consistently linked to enhanced adaptability and team functioning (Edmondson & Lei, 2014; Newman et al., 2017). For middle managers,

fostering psychologically safe environments enables both themselves and their teams to buffer the physiological toll of stress and engage in more constructive coping strategies.

This aligns with the principles of social buffering theory, which posit that positive relational interactions can downregulate the stress response, restore autonomic regulation, and promote emotional resilience (Cozolino, 2017). By cultivating relational trust and open communication, leaders mitigate the adverse effects of chronic stress and create the conditions necessary for adaptive engagement rather than defensive withdrawal in the face of adversity.

The following section explores how these conditions shape motivational schemas, which are core to the neuropsychotherapeutic understanding of how individuals interpret and respond to challenging environments.

2.4.2 Motivational Schemas

Human responses to adversity are shaped not by chance, but by deeply embedded motivational schemas—cognitive-emotional frameworks that emerge through repeated experiences of either need satisfaction or frustration (Grawe, 2007; Rossouw, 2014a). These schemas influence how individuals perceive challenges, regulate emotions, and mobilise coping strategies. Contemporary findings in cognitive neuroscience confirm that such schemas are linked to the activation of neural networks involved in emotion regulation, attention, and executive functioning (Hayes & Hofmann, 2021; Siegel, 2020).

An approach-oriented schema typically develops in enriched environments where basic psychological needs, such as attachment, control, and self-enhancement, are met consistently. These schemas promote flexible thinking, emotional openness, and goal-directed behaviour. In contrast, an avoidance-based schema emerges under conditions of chronic stress and unmet needs, reinforcing emotional rigidity, defensive coping, and hypervigilant threat appraisal.

Neuroscientific research affirms that motivational schemas are not merely psychological constructs but are biologically encoded and reinforced through repeated neural activation (Arden, 2019). The brain actively generates adaptive or maladaptive patterns of response based on experiential learning, particularly in relation to how basic psychological needs are fulfilled or thwarted. These patterns are mediated by

the interaction of core neural networks that govern self-awareness, attention, and stress adaptation, offering insight into the neurobiological foundations of resilience.

Three primary networks underpin this process. The default mode network (DMN) supports self-referential thinking, autobiographical memory, and identity formation—functions that allow individuals to reflect on prior adversity and construct meaning from past experiences. The central executive network (CEN) is implicated in goal-directed behaviour, emotional regulation, and working memory, enabling individuals to reappraise stressors and implement proactive coping strategies. The salience network (SN) plays a regulatory role by filtering internal and external stimuli, identifying salient threats or opportunities, and coordinating the dynamic switching between the DMN and CEN (Arden, 2019; Menon, 2011). The development of motivational schemas, as described in the INM (Rossouw, 2014a), reflects the dynamic interplay between core psychological needs and the regulation of functional brain networks.

The SN serves as a neural switch, evaluating internal and external cues—often through neuroceptive processes (Porges, 2021)—to determine whether to engage the DMN or CEN based on perceived safety or threat (Menon, 2011). This triadic model forms a neurobiological foundation for understanding how the fulfilment or violation of basic psychological needs shapes resilience outcomes. Arden (2019) underscores that compromised environments impair these networks, leading to dysregulated motivational schemas and decreased adaptive functioning. In contrast, enriched environments promote neuroplasticity, strengthen motivation, and support psychological well-being. Notably, this neural dynamic parallels Siegel's (2020) Window of Tolerance Model, emphasising the importance of maintaining optimal arousal for effective stress regulation and resilient leadership under pressure.

For middle managers, the development and reinforcement of motivational schema carry significant implications for leadership effectiveness, decision-making, and stress regulation. Managers repeatedly exposed to compromised environments—characterised by unpredictability, low relational trust, and insufficient support—are more likely to internalise maladaptive schemas, which manifest as hypervigilance, emotional reactivity, and defensive leadership behaviours (Rossouw, 2014a).

In contrast, those embedded within enriched relational environments are more likely to develop adaptive motivational schemas, enabling them to respond to crises with

composure, employ strategic problem-solving, and create psychologically safe environments for their teams. These relational experiences become encoded at both cognitive and neurobiological levels, shaping how managers perceive challenges and regulate their responses under pressure.

The connection between neural function, motivational schemas, and resilience development underscores the plasticity of the human brain—indicating that maladaptive schemas are not fixed but can be reshaped through the consistent fulfilment of basic psychological needs (Grawe, 2007; Rossouw, 2014a). This interplay between schema formation and neural network regulation provides a robust theoretical foundation for conceptualising resilience as a dynamic, adaptive, and self-organising biopsychosocial process (Arden, 2019).

Building on this foundation, the following section examines the core basic psychological needs outlined in the INM and their role within the neurobiological feedback loop. These mechanisms explain how individuals can initiate neurobiological change in response to adversity, strengthening their capacity for sustained resilience over time.

2.4.3 Basic Psychological Needs and the Feedback Loop

The fulfilment or frustration of basic psychological needs plays a pivotal role in shaping resilience through a continuous feedback loop that influences both psychological regulation and neurobiological functioning. Within the INM (Rossouw, 2014a), four core needs—control and orientation, attachment, pleasure/pain regulation, and self-esteem—interact dynamically to modulate stress responses and determine resilience outcomes.

The SN operates as a neurobiological switch, continuously interpreting cues of safety or threat from the ANS and modulating engagement between the CEN and DMN (Arden, 2019; Rossouw, 2014a).

The feedback loop functions dynamically. Below we will highlight some of examples of this interplay:

- **Attachment:** Attachment, as conceptualised by Rossouw (2014a), refers to the fundamental human need for emotional and relational security. Secure attachment relationships serve as a foundation for affect regulation, enabling

individuals to co-regulate emotional experiences and manage stress more effectively. When this need is met, it communicates safety through the ANS, reinforcing neural pathways linked to trust, empathy, and social engagement (Cozolino, 2017; Porges, 2021). In contrast, unmet attachment needs activate the brain's threat detection systems, leading to defensive motivational schemas and avoidance-based coping strategies that undermine resilience (Rossouw, 2014a; Siegel, 2020).

- ***Control and orientation:*** This reflects the human need for predictability, coherence, and agency within one's environment. When individuals experience a sense of control, it enhances psychological safety and activates the CEN, which supports cognitive flexibility, emotional regulation, and goal-directed behaviour (Arden, 2019; Rossouw, 2014a). This promotes adaptive coping and strategic decision-making, particularly in leadership contexts. In contrast, environments characterised by unpredictability, ambiguity, or perceived threat trigger the SN, which prioritises threat detection and suppresses CEN activation. This neurobiological shift impairs executive functioning, reinforces feelings of helplessness, and contributes to the formation of rigid, avoidance-based motivational schemas (Raichle, 2015; Siegel, 2020). Over time, this feedback loop entraps individuals in maladaptive coping cycles that compromise resilience.
- ***Pleasure maximisation versus pain avoidance:*** This fundamental need reflects the organismic drive to pursue pleasurable, rewarding experiences while minimising physical or emotional distress. According to Rossouw (2014a), this regulation is closely associated with the dopaminergic reward system and the brain's broader stress-regulation circuitry. When individuals operate in environments that reliably offer emotional fulfilment, novelty, and sensory rewards, neural pathways linked to motivation and positive affect are reinforced—thereby fostering adaptive motivational schema and psychological resilience (Arden, 2019). In contrast, chronic exposure to pain, deprivation, or unresolved adversity sensitises the DMN, which becomes attuned to negative appraisal, rumination, and withdrawal (Siegel, 2020). This neurobiological dysregulation diminishes the brain's capacity for flexible adaptation and reinforces maladaptive coping responses, ultimately undermining resilience.

- **Self-esteem:** Self-esteem reflects an internalised sense of self-worth and the belief that one is competent, valued, and capable of contributing meaningfully to their environment. Rossouw (2014a) conceptualises self-esteem as a foundational psychological need that directly shapes motivational persistence and emotional stability. When this need is consistently met—through affirmation, mastery experiences, and relational validation—it activates the CEN, reinforcing adaptive schemas, emotion regulation, and resilience in the face of adversity (Arden, 2019). However, when self-esteem is chronically undermined, individuals become vulnerable to negative self-appraisal, heightened sensitivity to rejection, and internalised distress. These experiences activate the DMN, entrenching avoidant coping styles and decreasing psychological flexibility (Siegel, 2020). Over time, this dysregulation limits an individual's capacity to respond adaptively to stress and impairs relational functioning, particularly in leadership contexts where confidence and emotional balance are critical.

In Rossouw's (2014a) INM, the feedback loop functions through a dynamic and reciprocal relationship—the extent to which basic psychological needs are met or unmet directly influences the formation of either approach-oriented or avoidance-based motivational schemas. These schemas are reinforced through neuroplastic processes, gradually shaping the brain's response to future stressors. When psychological needs are repeatedly frustrated, neural pathways associated with the DMN become dominant, increasing emotional reactivity, stress sensitivity, and maladaptive coping.

Over time, this impairs resilience and reinforces defensive behavioural patterns. In contrast, when core needs are consistently fulfilled—particularly within enriched environments—functional integration across neural networks is enhanced. This supports the activation of the CEN, improves emotion regulation, and fosters adaptive functioning, thereby increasing resilience in complex and high-pressure contexts such as middle management (Arden, 2019; Siegel, 2020).

When basic psychological needs are consistently fulfilled, regulation of the ANS and functional neural networks improves—particularly the CEN. This enhances the development of adaptive motivational schemas, supporting cognitive flexibility,

emotional regulation, and goal-directed behaviour. For example, a middle manager with a strong sense of control and orientation during a crisis is more likely to exhibit strategic thinking and lower stress reactivity. Secure relational attachments promote the release of oxytocin, which buffers the effects of cortisol and facilitates trust-based social engagement (Cozolino, 2017; Siegel, 2020). These neurobiological dynamics foster approach-based behaviours that encourage team collaboration, innovation, and psychological safety.

Additionally, when the needs for attachment, control, and pleasure/pain regulation are met, self-esteem is reinforced—serving as a motivational anchor that further strengthens resilience and leadership effectiveness (Rossouw, 2014a). Middle managers who satisfy these core needs are more likely to cultivate resilient team environments marked by open communication, mutual trust, and collective adaptability (Newman et al., 2017).

However, when these basic psychological needs are persistently frustrated, individuals become increasingly susceptible to the formation of avoidance-based motivational schemas. Repeated need deprivation leads to uncontrollable incongruence—a persistent mismatch between the expectation of need fulfilment and actual experience—triggering heightened stress reactivity, emotional dysregulation, and reduced cognitive flexibility (Grawe, 2007; Rossouw, 2014b). Under such conditions, dominance of the DMN promotes rumination, negative self-appraisal, and social withdrawal (Siegel, 2020).

Concurrently, dysregulation of the HPA axis results in sustained cortisol release, which impairs executive functioning and disrupts the integration of key neural networks (Herman et al., 2016; Sapolsky, 2015). For instance, the loss of perceived control may contribute to learned helplessness, thereby diminishing resilience and undermining motivation to engage adaptively with adversity.

Disruptions in attachment can lead to social withdrawal or defensive relational patterns, while chronic exposure to pain or stress may foster maladaptive forms of pleasure-seeking behaviour, such as substance abuse or compulsive overwork. According to Rossouw (2017), the compounding effect of unmet needs—particularly in the domains of attachment, control, and pleasure regulation—can progressively erode self-esteem, transforming it from a source of motivation into a locus of

vulnerability. Middle managers experiencing self-esteem depletion during periods of crisis may respond by adopting rigid, over-controlling leadership behaviours or by withdrawing from relational responsibilities altogether.

Such responses contribute to organisational climates characterised by low psychological safety, diminished trust, and heightened interpersonal tension (Newman et al., 2017). Over time, these neurobiological and relational disruptions can significantly increase vulnerability to burnout, stress-related psychopathology, and further deterioration of resilience capacity (Dana, 2018).

This continuous feedback loop between basic psychological needs, motivational schemas, and neurobiological systems illustrates the recursive nature of resilience—it is not a fixed trait, but a dynamic process shaped by cumulative relational and environmental experiences. These insights highlight the critical importance of leadership development initiatives that prioritise need fulfilment, psychological safety, and adaptive stress regulation. Organisational environments that promote autonomy, relational connectedness, and a sense of control can help middle managers cultivate resilience-supporting neural pathways that buffer against adversity and sustain effective leadership under pressure.

The integrative relationship between core psychological needs, functional brain networks, and behavioural schemas provides a robust foundation for understanding how resilience is developed and maintained. This supports the central argument of the literature review—that resilience is not merely a psychological construct, but an emergent biopsychosocial capacity rooted in the interdependence of neurobiology, relational environment, and existential meaning-making. Advancing interventions that engage with this complexity is vital for fostering resilient leadership and organisational health in times of systemic disruption.

2.5 INTEGRATION OF THE LITERATURE

This section demonstrates how key constructs from positive psychology, such as self-efficacy, social support, emotional regulation, and meaning-making, are embedded within the INM.

The INM posits that psychological resilience is sustained through the fulfilment of four basic psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain regulation. These needs correspond closely with core resilience constructs in positive psychology:

Control and orientation corresponds to *self-efficacy, structured coping, and future orientation* as captured in the RSA and positive psychology literature. These constructs represent the belief in one’s capacity to manage adversity and maintain a sense of predictability.

Attachment aligns with relational trust, psychological safety, and family/social cohesion found in the RAR Model by Teo et al. (2017), and RSA by Friberg et al. (2006). These elements reflect the role of secure, co-regulated relationships in fostering resilience.

Self-esteem reflects perception of self, meaning-making, and purpose, that are particularly emphasised in the Faith-Hope-Love Model (Wong, 2023) and third-wave positive psychology. This psychological need supports identity stability and confidence during adversity.

Pleasure and pain regulation connects to *emotional regulation, positive affect, and mindful communication* as emphasised in both the RAR (Teo et al., 2017) and RSA (Friberg et al., 2006) frameworks. This dimension captures the ability to maintain affective balance and avoid maladaptive coping.

Table 2.1 provides a visual alignment between positive psychology constructs and the INM’s four basic needs, offering an integrative lens that anchors the analysis in Chapter 5. This synthesis clarifies that the resilience constructs used throughout the dissertation are not drawn from isolated models, but are convergently embedded within the INM framework; thus, enabling a unified discussion of empirical findings.

Table 2.1 *Integration between INM and Positive Psychology*

INM Psychological Needs	Positive Psychology Constructs
Control and Orientation	Self-efficacy, Structured Coping, Future Orientation
Attachment	Relational Trust, Psychological Safety, Family/Social Cohesion

Self-esteem	Perception of Self, Meaning-Making, Purpose (Faith-Hope-Love)
Pleasure/Pain Regulation	Emotional Regulation, Positive Affect, Mindful Communication

2.6 CHAPTER SUMMARY

The chapter began with an examination of resilience definitions, illustrating its shift from an innate trait to a dynamic and adaptive process. It then explored resilience within the framework of positive psychology, emphasising integrative interventions and psychological adaptability. Additionally, the chapter introduced the neuropsychotherapy perspective, highlighting the role of ANS regulation, neural network regulation, and basic psychological needs as a self-organising system in resilience formation. The discussion of resilience in this chapter highlights the necessity of an integrative perspective that bridges psychological strengths, relational dynamics, and neurobiological mechanisms. Third-wave positive psychology perspectives underscore systemic and cultural factors.

Neuropsychotherapy, however, provides a unifying framework that connects these insights from positive psychological resilience models to stress regulation, attachment processes, and neural adaptability. This integrative understanding of resilience aligns with the study's objectives and sets the foundation for empirical exploration in subsequent chapters. Lastly, this interdisciplinary perspective aligns with the study's empirical aim of examining how middle managers regulate psychological resilience through their basic psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain regulation. This theoretical foundation informs the empirical study presented in Chapters 3 to 5, which explores middle managers' lived experiences of resilience during global crises.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the research design and methodology used in this study. The research followed a qualitative, exploratory design within an interpretivist paradigm. This approach enabled the researcher to explore how middle managers experience resilience during global crises. The chapter discusses the research setting, entrée and establishing research roles, sampling, data collection, recording and analysis procedures, ethical considerations, and strategies to ensure trustworthiness.

3.2 RESEARCH DESIGN

A research design provides the overarching plan that connects the components of a study in a coherent and logical manner (Creswell & Creswell, 2018). This study adopted an exploratory research design, appropriate for investigating a phenomenon for which limited prior research exists.

An exploratory design was considered suitable as the study sought to develop an in-depth understanding of how middle managers experience and regulate resilience during global crises—an area that has not yet been extensively examined through a neuropsychotherapy lens. This design allowed for flexibility and openness in exploring participants' subjective experiences within complex organisational contexts.

The exploratory design supported the use of qualitative methods, including semi-structured interviews, to generate rich, contextualised data grounded in participants' lived experiences. Further detail regarding the research paradigm, research approach, research strategy, and analytical procedures is provided in the sections that follow.

3.3 THE RESEARCH APPROACH

This study employed a qualitative research approach to explore middle managers' subjective experiences of resilience during global crises. A qualitative approach was considered appropriate as the study sought to gain an in-depth understanding of

participants' lived experiences, perceptions, and meaning-making processes within their specific organisational contexts (Creswell & Creswell, 2018).

Qualitative research enables the exploration of complex, context-dependent phenomena and is particularly well-suited to examining resilience as a dynamic and adaptive process shaped by individual, relational, and organisational factors. Through this approach, the study was able to capture rich, descriptive data that illuminated how middle managers experience, regulate, and sustain resilience during periods of prolonged uncertainty.

The philosophical assumptions underpinning this qualitative approach are discussed later in the chapter under the research paradigm, following the discussion of the research strategy.

3.4 THE RESEARCH STRATEGY

This study adopted a phenomenological research strategy to explore middle managers' lived experiences of resilience during global crises. A phenomenological strategy is concerned with understanding how individuals experience, interpret, and make meaning of a phenomenon as it is lived and perceived within specific contexts (Creswell & Creswell, 2018).

The phenomenological strategy was considered appropriate as the study sought to gain insight into middle managers' subjective experiences of regulating stress, sustaining a sense of self, and maintaining resilience in complex and uncertain organisational environments. By focusing on participants' first-person accounts, the strategy enabled a rich exploration of how resilience is experienced as a dynamic, embodied, and relational process.

Semi-structured interviews were employed as the primary data collection method, allowing participants to reflect on and articulate their lived experiences in their own words. This approach supported depth, flexibility, and responsiveness to individual meaning-making while remaining aligned with the exploratory design and qualitative research approach adopted in the study.

3.5 THE RESEARCH METHOD

This section elaborates on the research method of the study. The following subsections describe the research setting, entrée and researcher roles, sampling strategies, data collection and analysis methods, and the strategies employed to ensure data quality. Each aspect of the research method aligns with the study's focus on exploring the lived experiences of middle managers during global crises.

3.5.1 Research Setting

A virtual setting was chosen to accommodate the geographical diversity of the participants as well as accommodate ongoing remote work or isolation because of the recent pandemic. Except for one participant, most of the participants were at home when the interviews were conducted. None of the participants were physically located in any war zone, but some of their colleagues or friends were affected by the war in Ukraine. The virtual setting enabled flexibility and accessibility, allowing participants to engage in the study at a time and place that suited their schedules. All the participants worked in organisations that experienced substantial disruption, requiring rapid responses and strategic adaptations because of COVID-19 and the start of the war in Ukraine.

To ensure a conducive environment for open and honest discussions, efforts were made to establish a professional yet approachable atmosphere during the interviews. Participants were encouraged to speak freely about their experiences, and the virtual nature of the interviews was balanced with techniques such as active listening to foster rapport and trust. The researcher also ensured that the setting respected privacy and confidentiality, addressing any potential concerns participants might have had about data security and the recording process.

3.5.2 Entrée and Establishing Research Roles

The researcher gained access to participants through professional networks such as [LinkedIn](#), leveraging its professional focus and diverse industry reach to identify middle managers who met the study's inclusion criteria. The inclusion criteria were clearly communicated to potential participants who messaged the researcher directly, to ensure alignment with the research objectives. This approach facilitated access to a diverse pool of participants with first-hand experience in middle management during global crises.

In the dual roles of interviewer and interpreter, the researcher maintained a balance between objectivity and empathy throughout the research process. The interpretivist paradigm guiding this study emphasised co-constructed knowledge, requiring the researcher to remain reflexive and critically aware of their influence on data collection and interpretation. A reflexive journal was employed as a key strategy to document reflections, potential biases, and analytic decisions, ensuring transparency and methodological rigour (Creswell & Poth, 2018).

Establishing rapport with participants was a priority to create an environment of trust and open communication. The researcher employed active listening techniques, empathetic questioning, and a non-judgmental approach to encourage participants to share their lived experiences candidly. By fostering a respectful and supportive interview atmosphere, the researcher enabled participants to feel comfortable discussing sensitive aspects of their resilience and leadership challenges during crises.

3.5.3 Sampling

This study employed purposive sampling; a non-probability sampling technique that enabled the selection of participants based on specific inclusion criteria relevant to the research objectives (Patton, 2015). The inclusion criteria focused on participants with management experience, specifically:

- Middle level managers with at least five years of leadership experience.
- Middle managers who were actively engaged in leading teams during global crises, such as the COVID-19 pandemic or the Ukraine war.

Exclusion criteria were applied to ensure that participants were able to provide meaningful and relevant insights aligned with the aims of the study. Individuals were excluded from participation if they did not occupy a middle-management role, did not have direct leadership responsibility during a period of global crisis, or had insufficient organisational tenure to reflect on their lived experience of resilience within a crisis context. In addition, individuals who were unable to participate in an in-depth, semi-structured interview conducted in English, or who were not willing to provide informed consent, were excluded from the study. These exclusion criteria helped to

maintain a coherent and information-rich sample while remaining consistent with the exploratory and phenomenological nature of the research.

By centring the inclusion criteria on middle management experience rather than demographic characteristics, such as gender, age, or cultural background, the study aimed to capture a broad spectrum of perspectives. This approach ensured that participants had sufficient experience to provide meaningful insights regarding the context, resulting in rich data.

Data saturation, as defined by Guest, Bunce, and Johnson (2006), occurs when no new themes or insights emerge from additional data collection, indicating that the dataset is sufficiently rich to answer the research questions. In this study, data saturation was achieved by the eighth interview, and a total sample of eight participants was therefore deemed sufficient to meet the objectives of the research.

This sampling strategy ensured that the study captured the lived experiences of middle managers across a range of industries impacted by global crises.

Table 3.1 summarises participant demographics and crisis contexts, providing an overview of their backgrounds and the crisis contexts in which they operated.

Table 3.1 *Participant Demographics and Crisis Contexts*

Participant ID	Industry	Country	Crisis Context
Participant 1	Telecommunication	United Kingdom	COVID-19 pandemic
Participant 2	Tobacco	United Kingdom	Ukraine War
Participant 3	Learning and Development	South Africa/Dubai	COVID-19 pandemic
Participant 4	Information Technology	Dubai	COVID-19 pandemic
Participant 5	Telecommunications	United Kingdom	COVID-19 pandemic

Participant ID	Industry	Country	Crisis Context
Participant 6	Property	United Kingdom	COVID-19 pandemic
Participant 7	Tobacco	Switzerland	COVID-19 pandemic
Participant 8	Marketing	South Africa	COVID-19 pandemic

3.5.4 Data collection

Data collection was conducted using semi-structured interviews, a method chosen for its balance between structure and flexibility, aligning with the study’s aim of exploring middle managers’ experiences of resilience during global crises. The semi-structured format facilitated an in-depth exploration of participants’ unique experiences (Creswell & Poth, 2018). The design of the interview guide was explicitly informed by the Integrative Neuropsychotherapy Model (INM), ensuring alignment with the study’s theoretical framework and empirical aims.

The interview guide focused on participants’ experiences of basic psychological needs—attachment, control and orientation, self-esteem, and pleasure/pain regulation—and how these needs were met by middle managers. The following questions were included:

1. How did you experience your sense of control and orientation during the global crisis?
2. How did you experience support and your sense of belonging during the global crisis?
3. How did you perceive your sense of self and your ability to lead during the global crisis?

4. How did you experience pleasure, joy, or ways of reducing distress during the global crisis?

These questions were designed to capture participants' experiences of control and orientation, perceptions of support and belonging, self-perception during crises, and strategies for balancing pleasure and pain. By addressing the INM's core dimensions, such as attachment and self-esteem, the interview guide ensured that data collection was tightly aligned with the study's theoretical framework and research objectives.

3.5.5 Recording of Data

All interviews were conducted virtually via Microsoft Teams, accommodating the geographical diversity of participants and ensuring accessibility. Each session lasted approximately 30 to 45 minutes and was audio and video recorded with participants' consent. The virtual setting offered participants a familiar and comfortable environment, fostering open and honest discussions. Although non-verbal cues were less observable in the virtual format, this limitation was mitigated through active listening, follow-up questioning, and iterative data review. Transcriptions were manually reviewed and corrected to ensure accuracy and completeness.

Following each interview, the recordings were transcribed using the automatic transcription feature in Microsoft Teams. The researcher manually reviewed and corrected each transcript to eliminate errors and ensure accuracy. This meticulous approach ensured that participants' verbal expressions were faithfully represented, providing a reliable foundation for subsequent data analysis.

3.5.6 Data Analysis

The data collected from the semi-structured interviews were analysed using reflexive thematic analysis, a method known for its capacity to identify, analyse, and interpret patterns within qualitative data (Braun & Clarke, 2006, 2022). Reflexive thematic analysis is well-suited to exploratory, qualitative research within an interpretivist paradigm, as it acknowledges the researcher's active role in constructing meaning and views themes as the outcome of a reflexive and iterative process (Braun & Clarke, 2019, 2022). This method aligned with the study's aim of understanding how middle managers experience resilience during global crises through the lens of neuropsychotherapy (see Section 1.4).

In line with Braun and Clarke's (2006,2022) reflexive thematic analysis, the analysis began with a familiarisation phase, during which the researcher repeatedly read the transcripts and listened to the audio recordings. This phase allowed for the identification of early patterns and key ideas, especially those related to the four basic psychological needs from the INM—attachment, control, self-esteem, and pleasure/pain regulation.

During initial coding, meaningful segments of data were labelled inductively, meaning that codes were generated from the data itself rather than imposed by pre-existing theories or frameworks, consistent with Braun & Clarke's (2022) reflexive and flexible approach to coding. This bottom-up approach allowed insights to emerge organically from participants' lived experiences, ensuring that the analysis remained grounded in their perspectives. These codes were then reviewed and grouped into preliminary themes, capturing broader experiential patterns. For example, codes related to managing uncertainty, relational dynamics, and leadership demands were clustered under themes such as "Navigating Control and Uncertainty" and "Support Networks". Throughout the process, the researcher engaged in ongoing reflexivity, critically evaluating their interpretations and maintaining alignment with both the participants' voices and the study's theoretical lens.

3.6 REPORTING

The findings of this study were presented thematically and narratively, reflecting the structure of the reflexive thematic analysis used. This approach aligns with qualitative research principles, which prioritise meaning-making, subjectivity, and the contextual depth of participants' lived experiences (Braun & Clarke, 2022; Creswell & Poth, 2018).

A narrative format was employed to preserve the richness and complexity of participants' accounts, enabling the researcher to represent not only what participants said, but also how they made sense of their experiences (Riessman, 2008; Sandelowski, 1991). To enhance authenticity and transparency, direct quotations were used throughout to illustrate key insights and maintain the centrality of participants' voices (Patton, 2015).

This presentation style allowed key themes to emerge clearly while remaining grounded in the emotional, psychological, and relational dimensions articulated by middle managers navigating global crises.

Each theme was explored in detail, supported by anonymised participant quotes. These quotations were cited using de-identified labels and transcript line numbers (e.g., *E/13–18*, where *E* indicates the participant and *13–18* refers to the relevant transcript lines). This strategy grounded the thematic interpretation in authentic, lived experiences and reflected both shared and divergent perspectives among middle managers.

This integrated presentation style enabled the emergence of key themes while remaining attuned to the emotional, psychological, and relational nuances expressed by participants navigating leadership demands during global crises.

3.7 STRATEGIES EMPLOYED TO ENSURE QUALITY DATA

The rigour and trustworthiness of qualitative research were ensured by employing strategies aligned with Lincoln et al.'s (2018) criteria of credibility, transferability, dependability, and confirmability. These strategies were integral to producing robust and meaningful insights into middle managers' resilience during global crises. The INM provided the theoretical lens for maintaining consistency between the data quality strategies and the study's overarching framework.

3.7.1 Credibility

Credibility refers to the confidence in the truth of the findings and is a central criterion for establishing trustworthiness in qualitative research (Lincoln et al., 2018). To ensure credibility, several strategies were employed.

First, the researcher maintained a reflexive journal throughout the study to document assumptions, decision-making processes, and potential biases. Reflexivity is essential in qualitative research as it enhances transparency and acknowledges the researcher's influence on the research process (Berger, 2015; Creswell & Poth, 2018).

Member checking was conducted by sharing interview transcripts and preliminary interpretations with participants to validate or clarify meanings and ensure that the findings authentically reflected their lived experiences (Birt et al., 2016; Lincoln et al.,

2018). Through this process, key themes, such as attachment, control, and relational trust, derived from the INM, were affirmed by participants themselves.

The researcher also engaged in prolonged engagement and iterative reading of the data to develop a nuanced understanding of each participant's account. According to Lincoln et al. (2018), prolonged engagement allows the researcher to build trust with the data and uncover subtle meanings.

Finally, peer debriefing was achieved through regular consultation with the research supervisor, who provided critical feedback and helped challenge assumptions; thus reinforcing analytical rigour (Nowell et al., 2017; Patton, 2015). These strategies collectively enhanced the authenticity and depth of the findings.

3.7.2 Transferability

Transferability was facilitated by providing thick, rich descriptions of the research context, participant experiences, and the analytical process (Lincoln et al., 2018). The inclusion of participants from diverse industries and organisational contexts further enriched the data, enhancing the transferability of insights across comparable scenarios.

3.7.3 Dependability

Dependability refers to the stability and consistency of the research process (Ahmed, 2024; Lincoln et al., 2018). In this study, dependability was enhanced by maintaining a comprehensive audit trail, which recorded all stages of the research process—from participant recruitment and data collection to coding, theme development, and interpretation (Nowell et al., 2017).

The audit trail also documented how key theoretical constructs from the INM—attachment, control, self-esteem, and pleasure/pain regulation—were applied during analysis, ensuring transparency in how theoretical and data-driven decisions were integrated.

In addition, regular supervisory reviews served as a form of external validation and quality control. These sessions provided opportunities for critical reflection, methodological alignment, and refinement of the analytic process (Creswell & Poth,

2018). Together, these strategies contributed to a coherent and traceable research process that supports the reliability of the study's findings.

3.7.4 Confirmability

Confirmability was achieved by grounding the findings in participants' narratives rather than researcher bias. Verbatim quotes from interviews were used extensively to substantiate thematic interpretations, offering transparency and allowing readers to trace conclusions back to the data (Lincoln et al., 2018). The integration of quotes into themes tied directly to the INM dimensions, reinforcing the theoretical foundation. Peer-debriefing sessions with the supervisor further helped to identify and mitigate potential subjective influences, reinforcing the researcher's reflexivity.

3.7.5 Reflexivity

Reflexivity refers to the researcher's ongoing process of critically examining how their background, assumptions, and position within the research context shape every stage of the inquiry, from data collection to interpretation (Creswell & Poth, 2018; Finlay, 2002). In qualitative research—especially within an interpretivist paradigm—reflexivity is essential to ensure that findings remain transparent, credible, and grounded in participants' experiences (Berger, 2015).

In this study, the researcher engaged in continuous self-reflection to monitor the influence of personal values, professional background, and theoretical orientation on the research process. A detailed reflexive journal was maintained, documenting methodological choices, interpretive decisions, and reflections on the researcher's positionality. This journal served both as a transparency tool and as a safeguard against unacknowledged bias.

These strategies were embedded within the INM, which emphasises the relational and intrapersonal dynamics of meaning-making. By maintaining reflexive awareness throughout, the study upheld rigorous qualitative standards and ensured that the findings authentically represented participants' narratives while remaining critically informed by the researcher's role in the interpretive process.

3.8 ETHICAL CONSIDERATIONS

This study adhered to rigorous ethical standards to protect participants and ensure the integrity of the research process. Ethical considerations were guided by the foundational principles of respect for persons, beneficence, and justice, as outlined in the *Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research, 1979) and the University of South Africa's Policy on Research Ethics (University of South Africa, 2024).

Ethical clearance was obtained from the relevant institutional review board prior to data collection. Informed consent was obtained from all participants, who were fully briefed on the study's purpose, their right to withdraw at any time, and how their data would be handled. Confidentiality, anonymity, and secure data management were maintained throughout to safeguard participants' privacy and uphold ethical research conduct.

3.8.1 Ethical Clearance

Ethical approval for the study was granted by UNISA's Department of Industrial and Organisational Psychology Research Ethics Review Committee (**ERC Reference: 2021_CEMS/IOP_015**), ensuring adherence to institutional standards and guidelines (see Annexure A). This approval confirmed that the study met rigorous ethical standards, including respect for participant autonomy, data confidentiality, and adherence to data protection regulations.

3.8.2 Informed Consent

The researcher provided potential participants with an initial information sheet (see Annexure B) This detailed information sheet outlines the purpose, procedures, potential risks, and benefits of the study. Before the interviews, all participants signed an informed consent form (see Annexure C) This consent form ensured that participants fully understood their rights, including the right to withdraw at any point without repercussions. This process safeguarded autonomy and empowered participants to make informed decisions regarding their involvement.

3.8.3 Confidentiality, Privacy and Anonymity

To protect participants' identities, the transcriptions were anonymised by replacing names with pseudonyms. Personal identifiers were removed during the transcription process, and the anonymised data were securely stored on an encrypted digital

platform. Access to the data was restricted to the researcher, and data handling adhered to institutional ethical guidelines and data protection regulations, such as the General Data Protection Regulation (GDPR) (European Parliament & Council of the European Union, 2016).

3.8.4 Voluntary Participation

Participation in this study was entirely voluntary, and no incentives were provided to avoid potential coercion. Participants were reminded of their right to decline to answer specific questions or to withdraw from the study at any stage without explanation. This emphasised the principle of voluntary participation and ensured participants' freedom in the research process.

3.8.5 Protection from Harm

The researcher prioritised creating a safe and supportive environment for participants during interviews, particularly given the sensitive nature of discussing personal resilience during global crises. Active listening techniques and empathetic questioning were employed to ensure participants felt respected and supported throughout the process. The researcher remained attentive to signs of discomfort and provided opportunities to pause or stop the interviews as needed. The University of South Africa offered the support of an Industrial and Organisational Psychologist if any of the research participants experienced any distress during the interview process; however, none of the participants required this support in the end.

All interviews were conducted in strict adherence to COVID-19 health and safety regulations, in line with national guidelines and UNISA's research protocols during the pandemic.

3.9 CHAPTER SUMMARY

This chapter outlined the research design and methodology used in the study. A qualitative, exploratory approach within an interpretivist paradigm was followed to explore middle managers' experience of resilience. The chapter described the research setting, sampling, data collection and analysis procedures, trustworthiness strategies, and ethical considerations.

CHAPTER 4: FINDINGS

4.1 INTRODUCTION

In this chapter, the findings that emerged from the reflexive thematic analysis are presented. Four main themes encapsulated middle managers' experiences of resilience during global crises. These themes and their sub-themes are firstly outlined to provide the reader with a global view. Thereafter, each theme and its sub-themes are presented with supporting quotations from the participants.

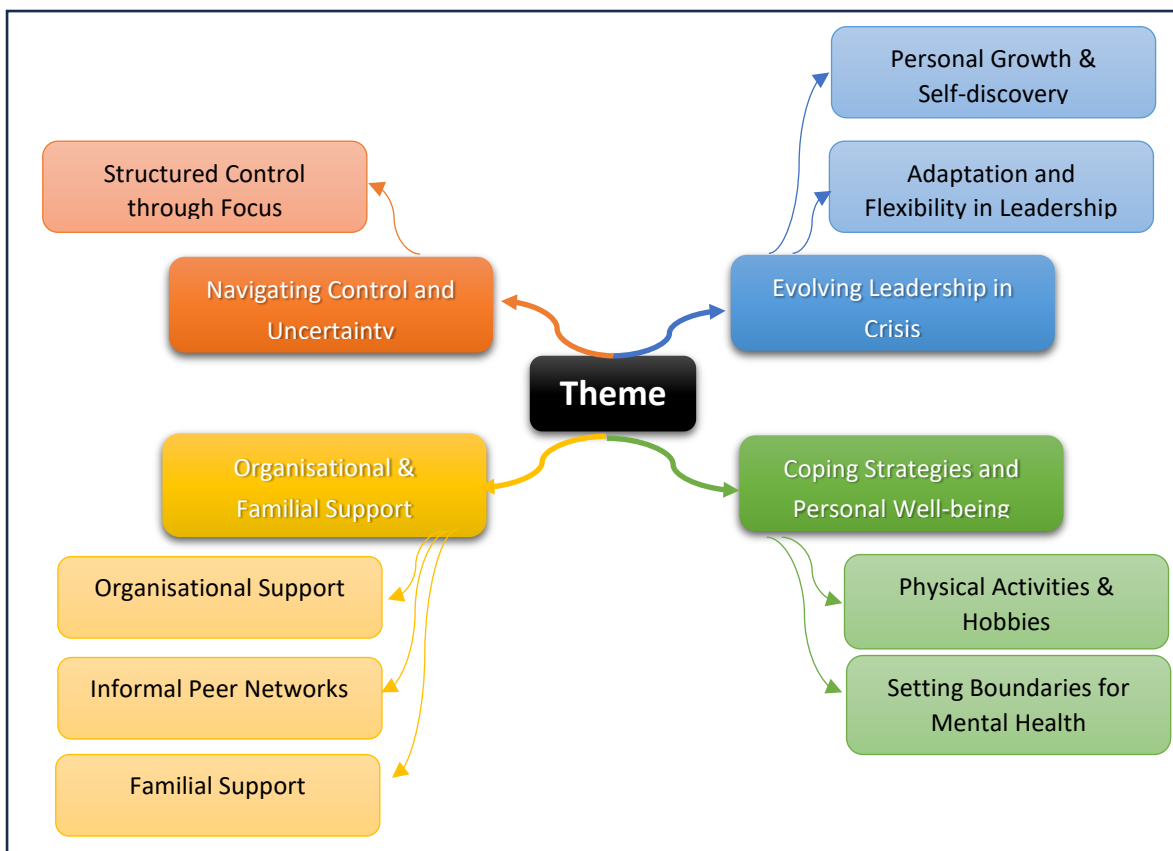


Figure 4.1 *Diagram of Themes and Sub-themes*
Note. Created by the author.

4.2 FOUR MAIN THEMES

Four themes emerged from the data, namely (1) navigating control and uncertainty; (2) organisational and familial support, (3) evolving leadership in crisis, and (4) coping strategies and personal well-being. Each theme is detailed below, supported by illustrative quotes from participants.

4.2.1 Theme 1: Navigating Control and Uncertainty

Participants described various ways in which they maintained a sense of control during the global crises, particularly during the COVID-19 pandemic. This theme is characterised by participants' need to manage what could be controlled amidst broader uncontrollable circumstances.

Most participants discussed the importance of focusing on what they could control as a primary strategy to manage uncertainty. They emphasised simplifying tasks and concentrating on immediate, manageable aspects of their environment, both personally and professionally.

Participant E illustrated this focus on control by stating, *"I liked to control things ... it was easy to control because I knew where everyone was"* (E/15–18). Similarly, Participant C noted, *"Yeah it's navigating it through it by simplifying it...focusing on the things that I could control ..."* (C/29–34). This approach is echoed by Participant D, who reflected, *"I dealt with it with this with as I deal with anything that touched me. And so trying to let's say focus on the things I can directly control ..."* (D/19–22).

On a broader scale, some participants recognised the overwhelming nature of the crises but found stability in controlling specific, immediate tasks. As Participant F shared, *"I realised not everything could be controlled, so I focused on what I could do at home and at work"* (F/273–275). Similarly, Participant B acknowledged the magnitude of the external events: *"There was a big sense of well events bigger than yourself forcing you into a into a corner ..."* (B/17–19). While Participant H mentioned, *"So the control that I got out of that... was just creating a safe place for the people that worked with me"* (H/155–158). This shows that while the crises were beyond their direct influence, focusing on smaller, controllable elements helped leaders maintain a sense of efficacy.

4.2.2 Theme 2: Organisational and Familial Support

This theme examines the critical role of both organisational support structures and personal relational networks in sustaining resilience during crises. Participants shared mixed perceptions of formal organisational initiatives, such as virtual check-ins and structured support programmes, which were often seen as misaligned with leaders' real needs. In contrast, self-organised peer networks and family support emerged as highly effective resources for emotional stability and resilience. Together, these

insights highlight the importance of both structured and organic support systems in navigating crisis-related stressors.

4.2.2.1 Organisational support initiatives

Organisational attempts to provide support during crises were often seen as inadequate or disconnected from the participants' real needs. Virtual check-ins, mental health resources, and similar initiatives were well-intentioned but did not always resonate with participants' experiences.

Participant D remarked, "*Some of the measures... were a bit weird ... coffee chats were not very useful*" (D/31–33). Participant B similarly commented on the inadequacy of formal support, saying, "*There were noises of support and some initiatives... but the support wasn't forthcoming ...*" (B/27–29). Even where organisations did provide some support, the results were often diluted, as Participant A pointed out: "*Support from the business was there ... but it often got diluted through the layers of management*" (A/47–49).

4.2.2.2 Informal peer networks

In contrast to formal organisational efforts, self-organised peer support networks were frequently cited as more effective in providing emotional and practical assistance. These informal networks, often created by the participants themselves or within their teams, proved to be crucial in fostering resilience during the crises.

Participant C shared, "*The sense of belonging was created among the teams... self-organised support was more useful ...*" (C/50-52). Similarly, Participant G emphasised the importance of these informal networks: "*We relied on each other ... our own support systems were what got us through*" (G/184–185). "*It just became so tedious ... so yeah, you invested more in fewer people. That actually meant more*" (F/184–186). These peer-driven support structures helped to fill the gaps left by formal organisational initiatives, providing participants with a more responsive and personalised form of assistance.

4.2.2.3 Familial support

In addition to peer support, many participants highlighted the critical role of family in sustaining their resilience. Family members provided emotional support, offering a sense of stability during an otherwise chaotic period.

Participant F noted, *"We swam every evening... it was wonderful family time"* (F/143–144), while Participant E expressed similar sentiments, saying, *"I really tried to be there for my team ... but my family was my main support system"* (E/123–124). These personal relationships offered participants a break from the stress of work and helped them maintain their mental health throughout the crises.

4.2.3 Theme 3: Evolving Leadership in Crisis

This theme delves into how leadership practices evolved in response to the challenges of remote work, shifting organisational dynamics, and personal growth during the crises.

4.2.3.1 Adaptation and flexibility in leadership

Many participants discussed how their leadership styles had to adapt to the new realities of the pandemic and other crises, particularly in navigating remote work and shifting team dynamics. Flexibility became a key element in their leadership practices, with a focus on communication and empathy.

Participant D reflected on this shift, stating, *"Leadership didn't change per se... but the way it was delivered did"* (D/195–197). Similarly, Participant A noted, *"I had to rethink how I led... it wasn't just about giving orders anymore"* (A/66–68). This shift also required embracing new strategies for managing remote teams, as Participant E explained, *"We had to change our approach... leading remotely required new strategies"* (E/119–121).

4.2.3.2 Personal growth and self-discovery

The crises also served as a catalyst for personal growth among the participants. Several leaders reflected on how the challenges forced them to confront their limitations, discover new strengths, and develop a deeper understanding of their capabilities.

Participant B described this experience, saying, *"Personal growth was phenomenal ... the last 18 months have been phenomenal for self-discovery"* (B/98–100). Participant F echoed this sentiment, noting, *"I discovered new strengths ... things I didn't know I was capable of"* (F/147–149). For many, the crises were an opportunity for reflection and self-improvement, as Participant C explained: *"The crisis forced me to reflect ... I grew as a leader and as a person"* (C/105–107). While participant H reported, *"It made*

me realise that a lot of the things that were what I just took for granted ... didn't have to be" (H/80–82).

4.2.4 Theme 4: Coping Strategies and Personal Well-being

This theme focuses on the various coping strategies participants employed to manage stress and maintain their well-being during the crises, particularly in terms of physical activities and setting boundaries between work and personal life.

4.2.4.1 Physical activities and hobbies

Engaging in physical activities and hobbies emerged as a critical coping mechanism for many participants. These activities provided a much-needed outlet for stress relief and helped participants maintain their physical and mental health during the crises.

Participant B shared, *"I dug up half of our garden ... it was a sanctuary of uhm I would sit and have meetings ..."* (B/203–206). *"So the gardening for me was the place where I could sort of release a bit of that pressure. It wasn't solving anything, but it was helping me to just manage myself better"* (B/98–101). Similarly, Participant F reflected on the benefits of physical activity, stating, *"We took up walking ... it helped clear my mind"* (F/147–148).

4.2.4.2 Setting boundaries for mental health

Establishing clear boundaries between work and personal life was another crucial strategy participants used to maintain their mental health. Several participants discussed the importance of these boundaries in preventing burnout and ensuring long-term resilience.

Participant D explained, *"I had to create boundaries... to protect my mental health"* (D/110–112). *"Now I realise this became a little bit of a habit during COVID ... working long hours, not taking any pause... and I'm trying now to re-educate"* (D/87–90). Similarly, Participant A emphasised the necessity of boundaries, saying, *"Establishing boundaries was essential ... it was the only way to avoid burnout"* (A/155–157). A more deeply affected comment came from participant E: *"I didn't realise that I wasn't giving myself the space that I needed. So I definitely didn't. And that's why I ended up really burning out."* (E/156–157).

4.3 CHAPTER SUMMARY

This chapter presented the findings of the empirical study, which emerged from the data analysis procedure. Four main themes and associated sub-themes emerged through thematic analysis. Each of the themes and their sub-themes were presented and substantiated with quotations from the participants. The next chapter will provide a discussion of the findings.

CHAPTER 5: DISCUSSION

5.1 INTRODUCTION

This chapter presents a unified discussion of the conclusions drawn from the literature and empirical findings. The discussion evaluates whether the study's aims, as outlined in Chapter 1, were achieved, and concludes with the study's limitations, contributions and recommendations for future research.

5.2 INTERPRETATION OF THE FINDINGS FROM AN INTEGRATIVE NEUROPSYCHOTHERAPY PERSPECTIVE

As illustrated in Figure 4.1 of Chapter 4, the empirical findings revealed four interrelated themes and associated sub-themes, reflecting the multidimensional nature of resilience explored in this study. Table 5.1 presents a higher level of abstraction by explicitly linking these empirical patterns to the theoretical constructs drawn from the Integrative Neuropsychotherapy Model (INM) and the resilience literature reviewed in Chapter 2.

Rather than discussing the findings as discrete themes, this section presents an integrated discussion organised around the four basic psychological needs underpinning the INM—control and orientation, attachment, self-esteem, and pleasure/pain regulation. This structure allows the discussion to foreground theory-driven interpretation while embedding the empirical themes within a cohesive explanatory framework.

Table 5.1 *Integration of the Empirical Findings and the Literature*

Theme	Sub-theme	Theoretical constructs (literature)	Supporting literature
Theme 1:	Structured Control through Focus	Structured coping strategies; efforts to regain stability and predictability; fulfilment of the	Rossouw (2014b); Grawe (2007); Teo et al. (2017); Southwick &

Navigating Control & Uncertainty		need for control and orientation	Charney (2018); Masten (2014); Wong (2023) Grawe (2007); Rossouw (2014a);
Theme 2: Organisational & Familial Support	Organisational Support, Informal Peer Networks, Family Support	Attachment and relational needs; psychological safety; emotional regulation; relational trust; co-regulation; neuroception of safety	Porges (2021); Teo et al. (2017); Southwick & Charney (2018); Masten (2014); Wong (2023)
Theme 3: Evolving Leadership in Crisis	Adaptation and Flexibility in Leadership, Personal Growth & Self- discovery	Self-reflection and meaning- making; emotional regulation; cognitive flexibility; mindful communication; fulfilment of the needs for self-esteem and meaning	Rossouw (2014b); Dana (2018); Siegel (2020); Wong (2023); Southwick & Charney (2018); Masten (2014)
Theme 4: Coping Strategies and Personal Well- being	Physical Activities & Hobbies, Setting Boundaries for Mental Health	Fulfilment of self-regulatory needs; self-agency; meaning- making; existential coping (faith–hope–love); pursuit of pleasure and avoidance of pain	Grawe (2007); Wong (2023); Masten (2021); Rossouw (2014b); Southwick & Charney (2018)

The findings of this study align with and extend existing resilience literature, offering novel insights into the experiences of middle managers during global crises from a neuropsychotherapy perspective. Each of the emergent themes reflects a multidimensional understanding of resilience, consistent with contemporary frameworks that integrate psychological adaptability, neurobiological regulation, and relational dynamics (Rossouw, 2014a; Siegel, 2020).

5.2.1 Control and Orientation as a Core Resilience Mechanism

Across the findings, the need for **control and orientation** emerged as a primary regulatory anchor supporting middle managers' resilience during global crises. Participants consistently described strategies aimed at restoring predictability, structure, and cognitive clarity in the face of uncertainty. These patterns were most prominently reflected in what was previously presented as *Theme 1: Navigating*

Control and Uncertainty, as well as in boundary-setting practices discussed under personal well-being.

Managers in this study appeared to meet their basic psychological need for control and orientation by employing structured coping strategies—specifically, by focusing on immediate priorities and implementing systems to reduce complexity. These behaviours illustrate the application of self-efficacy beliefs and cognitive reappraisal, whereby managers actively reframed uncertainty through goal-directed action and decision clarity.

Participant E illustrated this focus on structured control, stating, *“I liked to control things... it was easy to control because I knew where everyone was”* (E/15–18). This statement reflects intentional cognitive strategies to reduce perceived chaos and restore a sense of predictability—core components of structured coping.

From a neuropsychotherapy perspective, these actions align with Rossouw’s (2014a) emphasis on control and orientation as foundational to neurobiological safety. Similarly, Grawe (2007) maintains that individuals are motivated to create coherence between their internal needs and external environments—especially under threat. By recruiting executive neural networks to prioritise and focus, participants effectively regulated their responses to situational demands.

These findings support the research question regarding control and orientation by showing how middle managers used structured, self-directed coping behaviours to buffer uncertainty. They further underscore that structured coping, anchored in self-efficacy and executive functioning, can serve as vital resilience mechanisms in crisis contexts—consistent with the principles of integrative neuropsychotherapy.

5.2.2 Attachment and Relational Safety in Crisis Contexts

The findings further indicate that attachment and relational safety played a central role in sustaining resilience among middle managers. Experiences of organisational, peer-based, and familial support shaped participants’ ability to regulate stress, maintain psychological safety, and remain engaged in their leadership roles during periods of prolonged disruption.

The findings emphasise the crucial role of both organisational and familial support in fostering resilience among middle managers during global crises. Participants

described mixed experiences with formal organisational support initiatives, such as virtual check-ins, while valuing informal peer networks and familial support systems. These findings highlight the significance of relational trust and collaboration in buffering stress and enhancing adaptability (Teo et al., 2017).

In addition to relational support, participants often described the ability to manage their emotional responses in the midst of a crisis. Emotional regulation emerged as a key resilience strategy—not through suppression, but through staying composed, grounded, and available for others. This self-regulation was closely tied to the presence of supportive relationships, which appeared to buffer participants against emotional overwhelm and helped create a sense of psychological safety. The co-regulatory function of peers and family members was critical in enabling managers to maintain leadership stability under stress.

5.2.2.1 Organisational support

Participants expressed that formal organisational support structures were often insufficient in addressing their psychological needs for attachment, as well as need for control and orientation. While efforts such as virtual coffee chats or check-ins were implemented, they were frequently perceived as superficial or disconnected from the realities faced by middle managers.

Participant D remarked, "*Some of the measures... were a bit weird... coffee chats were not very useful*" (D/31-33). This comment reflects a misalignment between top-down resilience strategies and the lived experience of managers, highlighting a gap in meeting basic relational and cognitive safety needs.

This insight resonates with research by Southwick and Charney (2018), who emphasise the need for contextually relevant resilience interventions. When organisational supports lack congruence with the psychological needs of employees, they may inadvertently erode trust or add to stress. From a neuropsychotherapy perspective, such incongruence may fail to activate the brain's affiliative systems, which are critical for emotional regulation and safety (Grawe, 2007; Rossouw, 2014c). Furthermore, the incongruence between the expectation of support and the reality compromises middle managers' needs for control and orientation.

Although this incongruence stemmed from a lack or misalignment of organisational support, many managers were able to maintain approach-based motivational

schemas by forming informal peer networks; thereby avoiding a shift into avoidance-based schemas, largely due to their deep sense of responsibility.

5.2.2.2 Informal peer networks

In contrast, informal peer networks emerged as vital sources of emotional and practical support. These self-organised structures were not only more responsive but also more attuned to managers' lived realities. One manager reflected, "*The sense of belonging was created among the teams... self-organised support was more useful...*" (C/50-52). These networks fostered solidarity, trust, and co-regulation, emphasising relational resilience through collaboration and psychological safety (Teo et al., 2017). Relational connection activates the parasympathetic nervous system, enhancing calm and resilience. When organisations neglect to foster these genuine social safety mechanisms, informal networks often become the primary buffer against uncertainty and stress.

Building on the previous theme's focus on cognitive strategies, this theme contributes further to answering the research questions by highlighting how managers experienced organisational and relational support during global crises. It also reveals how informal peer networks functioned as strategic resilience mechanisms when formal systems were perceived as inadequate.

From a neuropsychotherapeutic perspective, these peer interactions fulfilled basic psychological needs for attachment and control, and orientation (Grawe, 2007; Rossouw, 2014b). The relational safety provided by peer networks helped facilitate movement towards a ventral vagal state, fostering calm and co-regulation, as described by Porges (2021). Crucially, by ameliorating emotional pain and reducing perceived threat, these relationships created conditions in which approach behaviours could emerge; enabling proactive problem-solving, collaboration, and meaning-making. This environment also encouraged collective efficacy and resilient self-beliefs, aligning with relational and existential constructs highlighted by Wong (2023) and Masten (2021).

Despite often being overlooked in formal resilience models, these informal networks proved especially valuable for middle managers, who navigate dual pressures from leadership and operational teams. Their experiences suggest that recognising and

legitimising peer support structures could enhance both individual and organisational resilience by meeting fundamental neurobiological needs.

This theme therefore contributes to the research questions by showing how managers experienced relational support as a buffer against stress, and how they engaged in peer-based strategies to build resilience.

5.2.2.3 Familial support

Alongside organisational and peer-based support systems, familial relationships emerged as a vital pillar of resilience for middle managers. Unlike workplace-based networks, family interactions provided a consistent and emotionally grounded space in which participants could decompress, reconnect, and regain perspective. This form of support functioned as a personal sanctuary, buffering the cognitive and emotional toll of crisis-related demands at work.

Participant F noted, "*We swam every evening... it was wonderful family time*" (F/143-144). These experiences reflect the role of close relational bonds in meeting the psychological need for attachment—a key condition for neurobiological safety (Rossouw, 2014c).

The emotional safety provided by family likely activated the ventral vagal pathways, facilitating stress recovery and social engagement (Porges, 2021). Such secure relationships have also been linked to increased neural plasticity, which enhances cognitive flexibility and adaptive functioning (Rossouw, 2014b; Siegel, 2020).

This theme also aligns with the Triangle of Human Experience (Siegel, 2020), which frames resilience as an integration of mind, body, and relationships. By engaging in warm, reciprocal family interactions, participants were able to access all three of these domains—using relational connection to regulate their nervous systems, promote mental clarity, and maintain emotional balance during prolonged uncertainty.

Thus, familial support contributes to answering the first research question by revealing how personal relationships outside the workplace were experienced as stabilising and resilience-enhancing structures. It also touches on the second research question, insofar as participants intentionally engaged with family as a protective strategy against burnout and emotional dysregulation.

5.2.3 Self-Esteem, Identity, and Meaning-Making in Leadership Adaptation

Beyond immediate coping and relational support, the findings reveal how crisis experiences contributed to shifts in leadership identity, self-esteem, and meaning-making. Middle managers described adaptive changes in how they led others and understood themselves, suggesting that resilience involved not only functional adjustment but also personal and existential transformation.

The findings revealed that middle managers experienced significant transformations in their management practices during global crises. These changes were characterised by increased adaptability, empathy, and communication to address the challenges of leading remote and distressed teams. Participants also reflected on how crises served as a catalyst for personal growth and self-discovery, fostering resilience both for themselves and their teams.

5.2.3.1 Adaptation and flexibility in leadership

To manage the complex challenges introduced by remote work environments, participants described a notable shift toward more flexible and relational management styles. This shift was characterised by adapted communication methods, person-centric thinking, and increased emotional attentiveness—especially in response to elevated stress and isolation among employees.

Participant D reflected on this shift, stating, "*Leadership didn't change per se... but the way it was delivered did*" (D/195–197). This reflects management communication adaptations, while emphasising emotional safety and empathy in virtual settings.

These behaviours reflect constructs of adaptive functioning and relational flexibility, central to resilience-building as outlined by Masten (2021), and align with Teo et al.'s (2017) emphasis on trust and collaboration as key to sustaining team resilience under pressure.

From a neuropsychotherapeutic perspective, these flexible management strategies helped fulfil the basic psychological needs for attachment (through emotional presence and empathy) and control/orientation (via consistent guidance and communication). They also contributed to pain avoidance, by reducing perceived threat through stability and responsiveness, and to pleasure maximisation, by fostering a sense of achievement, connection, and psychological safety. According to Rossouw (2014a), meeting these needs is essential for adaptive functioning under stress. By cultivating

psychological safety in uncertain environments, managers supported both their own and their teams' resilience.

This theme contributes to answering the second research question, by showing how managers intentionally adapted their managerial behaviours as a strategic response to crisis conditions; reinforcing the dynamic interplay between individual resilience and team well-being.

5.2.3.2 Personal growth and self-discovery

Beyond the immediate challenges of crisis management, several participants reflected on how these experiences prompted personal transformation and self-insight. This growth emerged not in spite of adversity, but because of it, reflecting a process of adaptive and existential transformation, as discussed in the resilience literature (Masten, 2021; Wong, 2023).

Participant B described this experience, saying, "*Personal growth was phenomenal... the last 18 months have been phenomenal for self-discovery*" (B/98-100). This comment highlights processes of self-reflection, identity re-evaluation, and management growth.

This growth was often enabled by relational support (Theme 2) — whether from teams, peers, or families—underscoring the importance of relational safety in fostering self-discovery (Porges, 2021). From a neuropsychotherapeutic lens, such growth reflects the fulfilment of core psychological needs (e.g., control and orientation, pleasure, and attachment), which in turn contributes to the development of self-esteem (Grawe, 2007; Rossouw, 2014c). Moreover, consistent support and the positive reinforcement of self-worth may trigger neuroplastic adaptations that consolidate more coherent self-narratives and a strengthened sense of identity (Cozolino, 2017; Siegel, 2020).

These shifts in leadership identity and self-awareness also speak to the fulfilment of the basic psychological need for self-esteem, as managers adapted and grew in confidence amid uncertainty. Additionally, the experience of overcoming adversity and discovering personal meaning in the process reflects the human drive toward existential coherence and purpose, as articulated in Wong's (2023) existential positive psychology. Together, these processes suggest that evolving leadership during crises is not only a functional adaptation, but also a deeply integrative one that supports both neurobiological stability and psychological growth.

This theme contributes to the research questions by showing how participants experienced moments of insight and renewal, and how they intentionally leveraged adversity as a strategy for growth. It suggests that resilience is not merely about returning to baseline, but about transforming through challenge.

5.2.4 Pleasure/Pain Regulation and Embodied Recovery

The findings also highlight the importance of pleasure/pain regulation and embodied recovery in sustaining resilience. Participants described deliberate engagement in physical activities, restorative routines, and boundary-setting practices that supported emotional regulation, physiological recovery, and ongoing leadership effectiveness under sustained stress.

The findings revealed that middle managers employed a variety of coping strategies to manage stress and maintain their well-being during global crises. These strategies included engaging in physical activities, setting boundaries to protect mental health, and prioritising self-care. These practices not only supported personal resilience but also enabled middle managers to sustain their managerial effectiveness under pressure.

5.2.4.1 Physical activities and hobbies

Participants described engaging in physical activities, such as walking, gardening, or structured exercise routines, as key coping strategies that helped regulate emotions and create psychological distance from work-related stress. These practices offered a means of grounding themselves and maintaining perspective during periods of high uncertainty.

Participant B shared, "*I dug up half of our garden... it was a sanctuary of uhm I would sit and have meetings...*" (B/203–206). Such moments of purposeful disengagement provided both mental clarity and emotional relief, enabling more effective decision-making and interpersonal regulation at work.

These findings highlight the role of intentional habits in sustaining resilience and emotional regulation in sustaining well-being and fostering resilience through pleasure/pain mastery and meaning (Wong, 2023). From a neurobiological perspective, physical activity activates the parasympathetic nervous system, promoting emotional recovery and physiological calm (Porges, 2021). The associated release of endorphins and dopamine further enhances mood and stress resilience,

while the sense of routine and control supports basic psychological needs for orientation and pleasure maximisation (Grawe, 2007), which cumulatively assists in the regulation and coordination of the central executive network, default mode network and salience network (Arden, 2019)

From a neuropsychotherapy lens, these activities are more than leisure—they are strategic self-regulation tools that help restore equilibrium by addressing the brain's need for predictability, positive affect, and recovery.

This theme contributes to answering the second research question, by demonstrating how managers employed intentional behavioural strategies to support their own well-being, thereby reinforcing their resilience under sustained pressure.

5.2.4.2 Setting boundaries for mental health

Another key coping strategy described by participants was the intentional setting of boundaries between work and personal life. This is particularly crucial in remote work environments where these lines were easily blurred. Participants reported that protecting non-work-related time, prioritising rest, and limiting after-hours availability were essential to sustaining their mental health and energy levels.

Participant D explained, *"I had to create boundaries ... to protect my mental health"* (D/110–112). This comment reflects boundary erosion and the effort to regain homeostasis.

From a neuropsychotherapy perspective, boundary setting directly supports the psychological needs for control, orientation, and pleasure (Grawe, 2007; Rossouw, 2014a;). By reclaiming time and mental space, participants fostered a sense of autonomy and predictability, which are vital for emotional regulation and resilience (Southwick & Charney, 2018).

These strategies speak to the fulfilment of several core psychological needs. The use of exercise, time in nature, and hobbies aligns with Grawe's (2007) need for pleasure and the avoidance of pain, functioning as restorative coping behaviours. Setting emotional boundaries and taking intentional rest also reflect a sense of self-agency and control, which further reinforces psychological safety. Importantly, participants' references to values, purpose, and faith resonate with Wong's (2023) framing of existential coping, specifically, the capacity to draw strength from faith, hope, and love

during times of disruption. These dimensions underscore how seemingly personal well-being choices carry deeper psychological and neurobiological functions that support resilience.

This theme also resonates with Polyvagal Theory, which suggests that environments promoting psychological safety and predictability facilitate parasympathetic activation and recovery (Porges, 2021). In boundary-rich routines, participants could disengage from hypervigilant states and access calmer, more restorative neural patterns.

Such strategies reflect findings from Southwick and Charney (2018), who emphasise that resilience during prolonged stress relies not only on effortful coping, but also on recovery mechanisms that protect psychological resources.

By establishing clear work-life boundaries, participants were able to recharge, maintain perspective, and continue functioning effectively, demonstrating a deliberate and adaptive strategy that speaks directly to the second research question on resilience behaviours.

5.3 DYNAMIC INTERACTION BETWEEN THE FOUR BASIC PSYCHOLOGICAL NEEDS

The four themes that emerged in this study, ranging from cognitive control strategies to personal well-being practices, do not stand alone. Rather, they represent interdependent dimensions of a dynamic resilience process, underpinned by the Integrative Model of Neuropsychotherapy (INM) (Rossouw, 2014a). Across the findings, all four core basic psychological needs—attachment, control and orientation, pleasure maximisation and pain avoidance, and self-esteem enhancement—were evident to varying degrees. While some needs, such as control/orientation and attachment, featured more prominently, others such as pleasure regulation and self-esteem emerged more subtly, often as downstream effects of relational and adaptive experiences. This pattern suggests a recursive and mutually reinforcing feedback loop of adaptation.

The need for control and orientation was most directly reflected in Theme 1: Navigating Control and Uncertainty, where participants described cognitive strategies such as focusing on what could be controlled, prioritising tasks, and creating structure. This

need reappeared in Theme 4: Setting Boundaries for Mental Health, where participants established routines and limits to maintain psychological clarity and autonomy. In both cases, satisfying the need for control not only enhanced short-term coping but also triggered a feedback loop—greater control led to improved emotional regulation, which in turn enabled more constructive responses to ongoing stress.

Theme 2: Relational Support introduced the attachment dimension, highlighting how participants drew strength from informal peer networks and family relationships. These connections provided psychological safety, emotional validation, and co-regulation—all of which align with both Polyvagal Theory (Porges, 2021) and the RAR Model (Teo et al., 2017). Relational safety appeared to support the emergence of flexible management behaviours described in Theme 3, suggesting a feedback loop between interpersonal grounding and professional adaptability. Managers who felt emotionally supported were more likely to model empathy, maintain team cohesion, and navigate uncertainty effectively.

In Theme 3, sub-theme 2, Personal Growth and Self-discovery, participants reflected on how crisis experiences prompted self-reflection and transformation. Here, the Triangle of Human Experience (Siegel, 2020) becomes particularly relevant, as participants described interconnections between mind, body, and relationships in their growth journeys.

Therefore, the core elements of the INM were not distributed neatly across themes, but instead appeared in layered, overlapping ways. For example, when participants engaged in physical activity (Theme 4, sub-theme 1), they fulfilled not only the need for pleasure and regulation but also reasserted a sense of control and orientation. Similarly, boundary-setting behaviours fed into enhanced self-esteem and autonomy, reinforcing internal safety mechanisms and sustaining performance.

Across all themes, there is evidence of a neuropsychotherapeutic feedback loop. When one base element was satisfied (e.g., control through structure or attachment through support), it enabled others to activate more easily (e.g., emotional regulation, self-reflection, empathy). Conversely, when these needs were compromised, participants described increased blurred boundaries, or emotional burnout and a sense of overwhelm—consistent with Rossouw's (2014a) emphasis on the brain's prioritisation of safety.

According to theoretical models, middle managers—positioned between top-down demands and bottom-up pressures—would be expected to shift into a sympathetic (mobilised) or dorsal vagal (shutdown) state when organisational support is lacking. Neurobiologically, such conditions typically trigger a defensive response. However, in this study, many participants maintained a ventral vagal state, characterised by calm, connection, and engagement. This was largely attributed to strong family and peer relationships that met their need for attachment outside formal organisational structures. These secure relational bonds helped sustain approach-based motivational schemas, preventing a shift into avoidance-based coping despite the strain of their roles.

These findings suggest that middle manager resilience is not a fixed trait, but rather a fluid, co-regulated system. It unfolds through the interplay of internal strategies and external support. It is deeply shaped by the brain's drive to establish predictability, safety, and relational meaning. The INM, when viewed alongside Polyvagal Theory, provides a compelling lens through which to understand how middle managers adapt and grow in the face of sustained global stressors.

5.4 THEORETICAL AND PRATICAL CONTRIBUTIONS

This section synthesises the theoretical and empirical contributions of the study, in alignment with the overarching research aim—to explore middle managers' experiences of resilience during global crises from a neuropsychotherapy perspective. The contributions are organised into two domains—theoretical and practical—illustrating how the study advances both academic understanding and real-world application.

5.4.1 Theoretical Contribution

This contributes to Industrial and Organisational Psychology theory by applying the literature specifically to the middle management context. It demonstrates how relational safety, cognitive flexibility, and strategic adaptation collectively form resilience feedback loops, which can be supported or disrupted by crisis situations.

The integration of positive psychology and applied neuroscience offers a holistic understanding of resilience that spans neurological, psychological and interpersonal

systems. These findings support the view that resilience arises from an ongoing interaction between internal resources (e.g. cognitive structuring, self-regulation), relational supports (e.g. peer networks, familial safety) and leadership practices (e.g. flexibility, empathy).

It further illustrates that resilience depends on fulfilling basic neuro-reflexive needs such as control, attachment, orientation, pleasure/pain regulation, which facilitates self-esteem enhancement. Participants' experiences illustrate how these needs are met through approach motivational schemas that support autonomic regulation, emotional balance, and neural plasticity and demonstrates the critical role of relational trust in activating parasympathetic recovery mechanisms critical for resilience under chronic stress.

These findings reinforce the theoretical framework underpinning neuropsychotherapy, particularly Grawe's (2007) model of four basic psychological needs—control and orientation, attachment, self-esteem, and pleasure/pain avoidance. The participants' capacity to draw on structured coping, relational safety, personal growth, and restorative practices highlights how psychological integration occurs when these needs are met. This supports the idea that resilience is not only behavioural but also neurobiological and experiential in nature.

5.4.2 Practical Contribution

The findings also offer actionable insights for organisations, HR practitioners, and management development programmes aiming to build resilience capacity at the middle management level.

Middle managers employed intentional strategies like simplification, prioritisation, and boundary setting to regain control and emotional clarity. These mirror neuropsychotherapeutic principles that prioritise control and orientation and autonomic regulation during stress. Middle management training that focusses on boundary setting could greatly enhance resilience during times of crisis.

Informal peer networks and familial support emerged as key protective factors, often compensating for inconsistent formal support. These findings support initiatives that foster trust, inclusion, and co-regulation, such as peer mentoring or psychologically safe team structures.

Activities such as exercise, gardening, and intentional disconnection reflect bottom-up coping strategies that support parasympathetic recovery. Organisations should consider promoting these practices as part of resilience programming.

Managers described evolving their management style to be more empathic, human-centred, and communicative, enhancing both their own resilience and that of their teams. This highlights the need for management development that includes emotional intelligence, interpersonal awareness, and relational, person-centric management approaches during times of disruption and pressure.

By integrating the neurobiological and psychological dimensions of resilience, this study provides guidance for designing evidence-based interventions that address both individual needs and system-level resilience. These might include structured development programmes aligned with the INM, or team-based practices that enhance relational trust and adaptability during disruption.

From a practical perspective, these findings suggest that leadership development initiatives and organisational systems should intentionally align with these psychological needs. For example, offering autonomy and predictability (control and orientation), promoting psychological safety (attachment), recognising individual growth (self-esteem), and encouraging recovery and pleasure (pleasure/pain avoidance) may significantly enhance resilience in middle managers during crises.

5.5 LIMITATIONS

As with all research, this study is subject to certain limitations that inform the scope of its findings and offer direction for future inquiry. These limitations are discussed in relation to both the literature review and the empirical study.

5.5.1 Limitations of the Literature Review

The literature review focused on resilience in global crisis contexts, particularly during the COVID-19 pandemic and the war in Ukraine. While this focus increased relevance and timeliness, it may not be representative of more routine organisational stressors or long-term change processes. The literature regarding the experiences of resilience on middle management level is very limited and therefore required a higher reliance

on resilience literature in general. This limitation thus became the focus of the empirical study.

5.5.2 Limitations of the Empirical Study

Virtual semi-structured interviews were used for data collection, which improved accessibility but introduced constraints such as reduced observation of non-verbal cues and limited rapport-building opportunities. These factors may have influenced the depth or spontaneity of participant responses. Future studies might consider in-person or hybrid formats to enhance engagement and observational richness.

The study focused on middle managers, excluding perspectives from executives, junior staff, and non-managerial employees. While this focus allowed for a targeted understanding of middle management resilience, it limits insight into how resilience strategies might differ across organisational levels. As noted in earlier chapters, resilience is relational and context-specific, and may manifest differently across hierarchical structures (Edmondson, 2019).

A potential limitation of this study relates to researcher bias, given that the researcher herself occupied a middle management role during the COVID-19 pandemic and worked in an organisation with direct ties to colleagues based in Ukraine. These shared experiences may have influenced the researcher's interpretations or empathic alignment with participants' narratives. To mitigate this, reflexivity was consistently practised throughout the research process. This included keeping a reflexive journal, engaging in regular supervision, and maintaining awareness of personal assumptions during data collection and analysis.

Another limitation concerns the emotional sensitivity of the topic. While most participants were forthcoming and willing to explore their experiences in depth, there were instances in one interview that suggested a degree of emotional withholding—likely due to the painful or personal nature of the subject matter. This highlights the complexity of discussing resilience during prolonged adversity and underscores the need for psychological safety even within qualitative research settings.

5.6 RECOMMENDATIONS

The findings of this study offer actionable insights into how organisations can better support resilience among middle managers, particularly in crisis contexts. Recommendations are presented for both future research and organisational practice, based on the psychological, relational, and neurobiological dimensions of resilience identified through this study.

5.6.1 Recommendations for Future Research

While this study provides a valuable contribution to understanding resilience in middle managers, several areas remain for further exploration.

First, future research should examine how resilience strategies may vary across different cultural or organisational settings. Although this study included diverse industries and demographics, a more deliberate cross-cultural perspective could reveal how relational norms, management expectations, and psychological needs differ by context; thereby enhancing the adaptability of resilience frameworks. Previous research on resilience suggests the value of studying resilience across a range of stress contexts, including those that are chronic, industry-specific, or more subtle in nature (Southwick & Charney, 2018).

Further quantitative and mixed-methods studies would help to validate and extend the conceptual models applied here, particularly the integration of the positive psychology constructs and the INM (Rossouw, 2014a). Such studies could operationalise key constructs like psychological safety, control, or emotional regulation to examine their predictive relationships with workplace resilience.

Longitudinal research would also add value by tracking how resilience develops over time and in response to ongoing or repeated crises. This would offer insights into sustained adaptation and help determine whether the strategies identified here have enduring effects on leadership behaviours and mental well-being.

Additionally, comparative studies across organisational levels, including junior employees and executive leaders, could help to clarify which resilience mechanisms are specific to middle managers and which are shared across hierarchies (Edmondson, 2019).

Finally, as digital tools and hybrid work arrangements become more embedded in modern workplaces, future studies should explore how technology shapes resilience during times of crisis. Investigating how virtual platforms either support or undermine relational safety and neurobiological regulation would offer timely insights for evolving work environments.

5.6.2 Recommendations for Practice

The findings of this study offer several practical implications for organisations aiming to foster resilience among middle managers. A key recommendation is the need for organisations to tailor their formal support structures to address middle managers' basic psychological needs, including those of attachment, control, self-esteem, and pleasure/pain regulation, as identified in the INM (Rossouw, 2014a). While many organisations adopted generic well-being initiatives during crises, these were often perceived as insufficient or misaligned. Instead, co-created programmes that are directly informed by the lived experiences and expressed needs of middle managers are more likely to foster engagement and psychological safety.

Relational safety emerged as a foundational aspect of resilience. The study highlighted how informal peer networks often outperformed formal organisational support in terms of emotional validation and practical problem-solving. Organisations should, therefore, legitimise and actively support these peer-based systems through initiatives such as mentorship programmes, cross-departmental collaboration spaces, and team-based reflective practices. These structures cultivate trust and provide relational buffers during periods of heightened stress, reinforcing insights from both Polyvagal Theory (Porges, 2021), the RAR model (Teo et al., 2017) and the INM (Rossouw, 2014c).

Management-development programmes should also be reoriented to prioritise adaptive capacities. Middle managers in this study demonstrated the value of emotional regulation, empathetic communication, and flexible thinking when navigating crisis conditions. Training that explicitly builds these skills can better prepare managers for volatile environments, enhancing both personal resilience and their ability to support their teams effectively.

Maintaining a clear boundary between work and personal life was another resilience strategy frequently cited by participants. To support this, organisations should promote

flexible work arrangements, clarify role expectations, and foster a culture that respects psychological detachment outside of work hours. These practices enhance neurobiological recovery and emotional regulation, consistent with positive psychology and neuropsychotherapeutic principles (Fredrickson, 2013; Seligman, 2011).

In addition, well-being interventions should not be treated as peripheral but rather as integral to leadership effectiveness. Providing access to mindfulness tools, physical activity resources, and routine wellness check-ins can promote parasympathetic regulation and reduce cumulative stress, particularly during protracted crises (Rossouw, 2014c; Southwick & Charney, 2018).

Encouraging reflective practices, such as journaling or professional coaching, can further support resilience by fostering self-awareness and personal growth. These practices help leaders process their experiences and adapt their management styles, contributing to longer-term transformation. Importantly, organisations should also consider how recognition practices can validate the efforts of middle managers. Acknowledging the emotional labour and adaptive leadership shown during crises reinforces self-esteem and fosters a deeper sense of belonging and organisational commitment.

In summary, the resilience of middle managers can be significantly strengthened through an integrated approach that combines psychological support, relational safety, and organisational investment in adaptive leadership. These findings underscore the central role of middle managers in sustaining team cohesion and organisational adaptability during crises, and they point to clear, evidence-based strategies for supporting them in that role.

5.7 CHAPTER SUMMARY

This chapter brought together the theoretical, empirical, and practical insights gained through an exploration of middle managers' lived experience of resilience during global crises. It addressed the primary aim of the study to explore how middle managers experience resilience during global crises through the lens of neuropsychotherapy.

Drawing on the study's findings, the chapter demonstrated that resilience is shaped through an ongoing interaction of psychological adaptability, neurobiological

regulation, and relational safety. Through engagement with both positive psychology and neuropsychotherapy frameworks, the discussion reaffirmed and operationalised these theoretical models by illustrating how resilience is uniquely experienced by middle managers. These individuals emerged as key actors, navigating the intersection between strategic leadership and relational support during times of crisis.

The chapter also acknowledged the study's limitations, reflecting on the contextual boundaries of the research design while offering pathways for future inquiry. These considerations situate the findings within the broader field of resilience studies and suggest directions for further development of resilience frameworks across diverse cultural, organisational, and methodological contexts.

Finally, the chapter presented practical recommendations for both research and practice. These emphasised the importance of fostering relational trust, psychological safety, and neurobiological well-being through organisational interventions and leadership development strategies. By bridging theoretical constructs with applied insights, the study contributes to a more comprehensive understanding of how resilience can be cultivated in middle management roles.

In summary, this chapter synthesised the contributions of the dissertation and underscored the critical role of middle managers in enabling organisational adaptability during global crises. By situating resilience at the intersection of psychological, relational, and neurobiological domains, the study offers both a theoretical contribution and practical roadmap for supporting leadership sustainability in complex environments.

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ANNEXURE A: Ethical Clearance Certificate



UNISA CEMS/IOP RESEARCH ETHICS REVIEW COMMITTEE

10 May 2021

Dear Mrs. N Brain,

**Decision: Ethics approval from
10 May 2021 to 10 May 2024**

NHREC Registration # : (if applicable)
ERC Reference # : **2021_CEMS/IOP_015**
Name : Mrs. N Brain
Student # : 45028192
Staff # : N/a

Researcher(s): Name: Mrs. N Brain
Address:
E-mail address, telephone: 45028192@mylife.unisa.ac.za, +447472071539

Supervisor (s): Name: Mrs Jenny JM Venter
Address: Unisa, Muckleneuk Campus, Preller Street, Pretoria, 0003
E-mail address, telephone: ventejm@unisa.ac.za, 0124292337

Developing the resilience and relational capacity of leaders in times of crisis: An applied neuroscientific perspective.

Qualification: Masters (MCom)- Post graduate degree

Thank you for the application for research ethics clearance by the Unisa CEMS/IOP Research Ethics Review Committee for the above-mentioned research. Ethics approval is granted for **Three** years.

*The **low risk application** was **reviewed** by the CEMS/IOP Research Ethics Review Committee on the 28th April 2021 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. The decision was approved on 10th May 2021.*

The proposed research may only commence with the provision that:

- 1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa COVID-19 Position Statement on research ethics dated 26 June 2020 which is attached.**



2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the Unisa Policy on Research Ethics.
3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Unisa CEMS/IOP Research Ethics Review Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. No field work activities may continue after the expiry date **(10 May 2024)**
8. Submission of a complete research ethics progress report will constitute an application for the renewal of Ethics Research Committee approval.

Note:

*The reference number **2021_CEMS/IOP_015** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,



Signature

Chair of IOP ERC

E-mail : vnieka2@unisa.ac.za

Tel: (012) 429-8231



Signature

Acting Executive Dean : CEMS

E-mail: Mpofu@unisa.ac.za

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ANNEXURE B: Information Sheet linked to LinkedIn post

PARTICIPANT INFORMATION SHEET

Ethics clearance reference number: 2021_CEMS/IOP_015

Title: Exploring middle managers' lived experience of resilience in response to global crises: A neuropsychotherapy perspective

Dear Prospective Participant

My name is Nerinda Brain (Eshwar) and I am doing research with Professor Von der Ohe and Mrs Jenny Venter towards a Masters in Industrial and Organisational Psychology at the University of South Africa. We are inviting you to participate in a study entitled "Exploring managers' experience of their resilience in response to global crises: A neuropsychotherapy perspective"

WHAT IS THE PURPOSE OF THE STUDY?

The increasing frequency and complexity of global crises, such as the COVID-19 pandemic, geopolitical conflicts, and climate-related disasters, have significantly disrupted organisations across industries. These events have exposed leaders to unprecedented pressures, requiring rapid adaptation to evolving challenges while maintaining team cohesion, psychological safety (Polyvagal Theory), and operational stability (Carleton et al., 2018). Middle managers, positioned between senior leadership and frontline teams, play a critical role in organisational resilience. Their dual responsibility of implementing strategic directives and addressing team dynamics underscores their importance during crises.

Middle managers face unique challenges that distinguish their experiences from those of senior leaders. They are often responsible for maintaining psychological safety (Polyvagal Theory) within their teams, addressing employee anxiety, and fostering collaboration amidst uncertainty. During the COVID-19 pandemic, for example, middle managers had to navigate virtual environments, address stressors impacting both themselves and their teams, and ensure team cohesion under significant operational disruption.

Despite their centrality to organisational resilience, research on resilience has historically focused on executives, leaving the lived experiences of middle managers underexplored (Carleton et al., 2018). This gap in the literature presents an opportunity to examine how middle managers sustain resilience and adapt to the complexities of their roles during crises.

WHY AM I BEING INVITED TO PARTICIPATE?

It is anticipated that the information we gain from this study will help us to gain insight into new theoretical framework for developing leadership capacity in times of crisis. The data can also lead to designing better leadership development programmes for leading in times of crisis.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

A 1-hour semi-structured interview will be used to collect data. The purpose of the 1-hour semi-structured interview is to gain an in-depth understanding of leaders' experiences during covid-19 and how it affected their resilience and relational capacity. The sample size needed for this research study is 30 leaders within my professional LinkedIn network, from supervisory level and above.

Each participant will first provide written informed consent for participating in the study. The interviews will be conducted online, using MS Teams. The transcription will be done via the MS Teams' transcription function.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be asked to sign a written consent form (on the last page of this participant information sheet). You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The purpose of the study is to gain insight into how leaders navigated four basic psychological needs that drive relational capacity during COVID-19.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

This study is categorised as low risk, and the only foreseeable risk of harm is the potential inconvenience of the time you have to allocate to participate in the study. This study will not lead to any physical, psychological and social harm. Participation is voluntary and you can withdraw from the study at any time before or during the interview. In addition, any personal identification information will be removed from the data. See the next question for more detail in this regard.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The identities of all participants the organisation they are employed at will be kept strictly confidential. Only the researcher, the two supervisors and an independent statistician will have access to the data, however, these parties are legally bound by non-disclosure agreements. In addition, any answers you provide during the interviews will be coded using a pseudonym (e.g. P1). To protect your identity at all times, you will be referred by this pseudonym throughout the data, any publications, or other research reporting methods such as conference proceedings.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

- Both the transcriptions and the interview will be saved on an external hard drive that will be kept in a locked cupboard. No interviews or transcriptions will be saved to the cloud. This measure is taken to protect both the data and the anonymity of the participants in the study.
- Confidentiality of the interview data will be insured by using unique identifiers in the data set, which means the data set will be deidentified. The anonymity of the interviews will be ensured by allocating a number to each interviewee when the transcriptions are done. The transcriptions will then be matched to the interviewee with their unique identifier, so the data remains deidentified. All data that identifies any personal information whatsoever, such as, but not limited to company names or individuals, will be converted to pseudo names in the transcriptions to protect the identity of all parties. No identity of any individual participant or the organisation will be made public in the dissertation or any published article.
- The records of the transcriptions and interviews will be kept for five years for audit purposes where after it will be permanently destroyed. All hard copies will be shredded, and electronic versions will be permanently deleted from the hard drive of the external hard drive.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participation is voluntary, you will therefore not receive any payment or incentive for participating in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the College of Economic and Management Science, UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings or require any further information, please contact the researcher Nerinda Brain (Eshwar) via email to 45028192@mylife.unisa.ac.za. Alternatively, if you are interested in any published material related to this study, you are welcome to request such documents from the researcher.

Should you have concerns about the way in which the research has been conducted, you may contact the researcher's supervisor Mrs Jenny Venter via email at ventejm@unisa.ac.za. Alternatively, contact the research ethics chairperson Dr van Niekerk of the Department of Industrial and Organisational Psychology via email at vnieka2@unisa.ac.za.

Thank you for taking time to read this information sheet. To agree to partake in the study, kindly scroll to the next page to sign the informed consent form.

Thank you,

A handwritten signature in black ink, appearing to be the initials 'NB' followed by a flourish and a period.

Nerinda Brain (Eshwar)

ANNEXURE C: Information Sheet and Informed Consent

PARTICIPANT INFORMATION SHEET

Ethics clearance reference number: 2021_CEMS/IOP_015

Title: Exploring managers' experience of their resilience in response to global crises:
A neuropsychotherapy perspective

Dear Prospective Participant

My name is Nerinda Brain (Eshwar) and I am doing research with Professor Von der Ohe and Mrs Jenny Venter towards a masters in Industrial and Organisational Psychology at the University of South Africa. We are inviting you to participate in a study entitled "Exploring middle managers' lived experience of resilience in response to global crises: A neuropsychotherapy perspective"

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The increasing frequency and complexity of global crises, such as the COVID-19 pandemic, geopolitical conflicts, and climate-related disasters, have significantly disrupted organisations across industries. These events have exposed leaders to unprecedented pressures, requiring rapid adaptation to evolving challenges while maintaining team cohesion, psychological safety (Polyvagal Theory), and operational stability (Carleton et al., 2018). Middle managers, positioned between senior leadership and frontline teams, play a critical role in organisational resilience. Their dual responsibility of implementing strategic directives and addressing team dynamics underscores their importance during crises.

Middle managers face unique challenges that distinguish their experiences from those of senior leaders. They are often responsible for maintaining psychological safety (Polyvagal

Theory) within their teams, addressing employee anxiety, and fostering collaboration amidst uncertainty. During the COVID-19 pandemic, for example, middle managers had to navigate virtual environments, address stressors impacting both themselves and their teams, and ensure team cohesion under significant operational disruption.

Despite their centrality to organisational resilience, research on resilience has historically focused on executives, leaving the lived experiences of middle managers underexplored (Carleton et al., 2018). This gap in the literature presents an opportunity to examine how middle managers sustain resilience and adapt to the complexities of their roles during crises.

WHY AM I BEING INVITED TO PARTICIPATE?

It is anticipated that the information we gain from this study will help us to gain insight into new theoretical framework for developing leadership capacity in times of crisis. The data can also lead to designing better leadership development programmes for leading in times of crisis.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

A 1-hour semi-structured interview will be used to collect data. The purpose of the 1-hour semi-structured interview is to gain an in-depth understanding of leaders' experiences during covid-19 and how it affected their resilience and relational capacity. The sample size needed for this research study is 30 leaders within my professional LinkedIn network, from supervisory level and above.

Each participant will first provide written informed consent for participating in the study. The interviews will be conducted online, using MS Teams. The transcription will be done via the MS Teams' transcription function.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be asked to sign a written consent form (on the last page of this participant information sheet). You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

The purpose of the study is to gain insight into how leaders navigated four basic psychological needs that drive relational capacity during COVID-19.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

This study is categorised as low risk, and the only foreseeable risk of harm is the potential inconvenience of the time you have to allocate to participate in the study. This study will not lead to any physical, psychological and social harm. Participation is voluntary and you can withdraw from the study at any time before or during the interview. In addition, any personal identification information will be removed from the data. See the next question for more detail in this regard.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The identities of all participants the organisation they are employed at will be kept strictly confidential. Only the researcher, the two supervisors and an independent statistician will have access to the data, however, these parties are legally bound by non-disclosure agreements. In addition, any answers you provide during the interviews will be coded using a pseudonym (e.g. P1). To protect your identity at all times, you will be referred by this pseudonym throughout the data, any publications, or other research reporting methods such as conference proceedings.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

- Both the transcriptions and the interview will be saved on an external hard drive that will be kept in a locked cupboard. No interviews or transcriptions will be saved to the cloud. This measure is taken to protect both the data and the anonymity of the participants in the study.
- Confidentiality of the interview data will be insured by using unique identifiers in the data set, which means the data set will be deidentified. The anonymity of the interviews will be ensured by allocating a number to each interviewee when the transcriptions are done. The transcriptions will then be matched to the interviewee with their unique identifier, so the data remains deidentified. All data that identifies any personal information whatsoever, such as, but not limited to company names or individuals, will be converted to pseudo names in the transcriptions to protect the identity of all parties. No identity of any individual participant or the organisation will be made public in the dissertation or any published article.
- The records of the transcriptions and interviews will be kept for five years for audit purposes where after it will be permanently destroyed. All hard copies will be shredded, and electronic versions will be permanently deleted from the hard drive of the external hard drive.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participation is voluntary, you will therefore not receive any payment or incentive for participating in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the College of Economic and Management Science, UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings or require any further information, please contact the researcher Nerinda Brain (Eshwar) via email to 45028192@mylife.unisa.ac.za. Alternatively, if you are interested in any published material related to this study, you are welcome to request such documents from the researcher.

Should you have concerns about the way in which the research has been conducted, you may contact the researcher's supervisor Mrs Jenny Venter via email at ventejm@unisa.ac.za. Alternatively, contact the research ethics chairperson Dr van Niekerk of the Department of Industrial and Organisational Psychology via email at vnieka2@unisa.ac.za.

Thank you for taking time to read this information sheet. To agree to partake in the study, kindly scroll to the next page to sign the informed consent form.

Thank you,

A handwritten signature in black ink, appearing to be 'N.B.' or similar initials, written in a cursive style.

Nerinda Brain (Eshwar)

[PLEASE SCROLL DOWN TO COMPLETE THE INFORMED CONSENT FORM]

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has explained to me the nature, procedure, potential benefits and anticipated inconvenience of participation in this study.

I have read and understood the study as explained in the participation information sheet above. I have had sufficient opportunity to ask questions and am prepared to participate in the study. I understand that my participation is voluntary and that I am free to withdraw at any time without penalty. I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential.

- I agree to the audio recording of the interviews.
- I understand that this study is conducted through the University of South Africa and as such the data from this study will transfer across the border to South Africa.
- I have received a signed copy of the informed consent agreement.

Participant Name & Surname: _____ Date: _____

Participant

Signature _____

Researcher's Name & Surname: Nerinda Brain (Eshwar) Date: _____

Researcher's signature



ANNEXURE D: Interview Guide

Study title: Exploring middle managers' lived experience of resilience in response to global crises: A neuropsychotherapy perspective

SECTION A: Demographics

Middle to senior-level managers with at least five years of leadership experience.

Managers who were actively engaged in leading teams during global crises, such as the COVID-19 pandemic or the Ukraine war.

SECTION B

Question 1: Tell me about your sense of control and orientation during the global crisis?

Question 2: Tell me about your experiences of feeling supported and your sense of belonging during the global crisis?

Question 3: Tell me about your sense of self and your ability to lead during the global crisis?

Question 4: Tell me about your experiences of pleasure/joy or reducing distress during the global crisis?

ANNEXURE E: Turn-it-in Receipt and Originality Report



TURNITIN REPORT: NERINDA BRAIN (ESHWAR)

The Turnitin originality report for the final completed thesis yielded a 99% Similarity Index (Feb 4, 2026 at 11:36 AM Unisa CEMS), with the highest individual source match at 98%

1. An analysis of the findings revealed a 98% match to a previous submission of the student's own work that was uploaded erroneously in a duplicate profile at Unisa (processed 28 August 2025) creating the conflict in the current report. See submission title page and first match.
2. Authorship of the match in question was verified and confirmed, then hidden to reveal the underlying findings for further analysis.
3. When the similarity report is viewed without the shadow of the erroneous submission of the student's own work, the similarity index changes to 29% and the highest individual source match changes to 6%.
4. The supervisor investigated the remaining 29% similarity index. Similarities were due to standard terminology, the reference list and the informed consent form which is a standard document provided by the university.

The student complied with the academic expectations for this study.

The image displays two screenshots of a Turnitin originality report for a document titled "NERINDA BRAIN N_Brain_Dissertation_Final_Exam_Submission_30.01.2026.docx".

The top screenshot shows the report with a 99% Overall Similarity Index. The sources listed are:

- 1. University of South Africa on 2025-... SUBMITTED WORKS: 98%
- 2. dokumen.pub INTERNET: <1%
- 3. Fathiro H. R. Putra, Saeed Khanagh... CROSSREF: <1%
- 4. Brunel University on 2024-10-27 SUBMITTED WORKS: <1%

The bottom screenshot shows the report with a 29% Overall Similarity Index. The sources listed are:

- 1. unisa.ac.za INTERNET: 6%
- 2. journalofappliedneurosciences... INTERNET: <1%
- 3. unisa.ac.za INTERNET: <1%
- 4. sagepubpub.erau.edu INTERNET: <1%
- 5. 33-en-central-1.amazonaws.com INTERNET: <1%
- 6. wpa.usc.edu INTERNET: <1%
- 7. University of South Africa on 20... SUBMITTED WORKS: <1%

The report analysis was discussed with the Unisa Turnitin Office, and the selective exclusion of the student's own work was done after authorship of the match in question was also investigated by the Unisa Turnitin Office.

Please keep in mind that Unisa Turnitin reports for the completed final dissertation/thesis are all-inclusive, with the title pages and relevant bibliography/reference list included. This ensures a comprehensive report reflecting the true nature of content.

Mrs J.M. Venter

Supervisor

venteim@unisa.ac.za

012 429 2337

ANNEXURE F: Letter confirming language editing



Mrs. J Kalamer (LLM & Certificate in Editing)

CatchPhrase Editing and Proofreading

PEG Membership no. KAL003

SAFREA Membership no. SAF000891

Cell number: 083 4433434

Catchjeanne@gmail.com OR

Jeanne.kalamer@gmail.com

20 August 2025

TO WHOM IT MAY CONCERN

I hereby confirm that I, the undersigned, have edited the mini-dissertation for a Master of Commerce, in Industrial and Organisational Psychology, at UNISA, entitled,

EXPLORING MANAGERS' EXPERIENCE OF THEIR RESILIENCE IN RESPONSE TO GLOBAL CRISES: A NEUROPSYCHOTHERAPY PERSPECTIVE

by

Nerinda Brain

Student Number: 45028192

DISCLAIMER: The author of the dissertation is solely responsible for implementing the recommended language or content changes. The editor is not liable for any content alterations or errors introduced post-edit and will provide the original document if issues arise. The editor is not responsible for any AI-generated content (if applicable).

Yours truly

A handwritten signature in cursive script, appearing to read "J. Kalamer", is shown within a light grey rectangular box.

Jeanne Kalamer