

**Self-Concept of Individuals with Acquired Brain Injury and Effective Therapeutic
Interventions**

By

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Abstract

This capstone paper examines the complexity and impact of Acquired Brain Injury (ABI) on self-concept, emphasizing both the negative and positive outcomes that individuals experience. ABI, resulting from traumatic or non-traumatic events, leads to various physical, cognitive, and emotional changes that can greatly disrupt one's sense of self. The literature reveals significant negative changes in self-concept, including diminished self-concept, emotional distress, and a loss of autonomy, as well as demonstrating positive changes, such as resilience and personal growth. The research further highlights the critical role of evidence-based therapeutic interventions in facilitating self-concept reconstruction. These interventions operate on multiple levels, including neurobiological aspects by enhancing emotional regulation; intrapsychically that promote cognitive flexibility; and interpersonally by fostering social connectedness and support. The paper also critiques existing methodologies, highlighting the need for further research to evaluate the effectiveness of various therapeutic approaches in improving self-concept among ABI survivors.

Keywords: Acquired Brain Injury (ABI), Traumatic Brain Injury (TBI), non-traumatic brain injury (non-TBI), self-concept, identity reconstruction, therapeutic interventions

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Chapter One: Introduction

Acquired Brain Injury (ABI) represents a diverse set of conditions resulting from damage to the brain after birth (Goldman et al., 2022). ABI encompasses temporary and permanent impairments and can present various limitations impacting individuals' daily lives. ABI refers to brain damage occurring after birth, often resulting from traumatic or non-traumatic events (Desdentado et al., 2021; Goldman et al., 2022). Traumatic Brain Injuries (TBIs) stem from external forces like accidents or violence, while Non-Traumatic Brain Injuries (Non-TBIs) arise from internal conditions such as stroke or infections (Goldman et al., 2022). ABI outcomes vary depending on factors like age, injury severity, and support systems, leading to physical, cognitive, behavioral, and emotional changes (Doering et al., 2011). Regardless of the cause, ABI often leads to long-term or chronic limitations, disrupting the biographical narratives of many survivors (Doering et al., 2011). These injuries profoundly impact various domains of functioning, including physical, cognitive, behavioral, and emotional aspects (Beadle et al., 2020). These changes can cause disabilities affecting work, education, relationships, and daily activities, particularly impacting older individuals who may face additional health issues and longer recovery times (Goldman et al., 2022). Overall, ABI profoundly affects individuals' self-concept, self-esteem, and abilities (Ponsford et al., 2014).

Among these challenges, the perception an individual holds about themselves, also known as self-concept, is a profound change that may impact an individual's quality of life and psychological well-being (Doering et al., 2011). Self-concept encapsulates an individual's overall perception or belief about themselves, and individuals with ABI experience a significant impact in this domain (Doering et al., 2011). It is the base for their self-perceptions, beliefs, and emotions, encompassing judgments about their abilities across various life domains (Vickery et al., 2006). The impact of ABI on self-concept may differ based on the type of injury experienced

as a stroke and hit to the head have distinct consequences, both conditions can lead to changes in self-concept as individuals navigate their relationships with their bodies, families, and society (Ellis-Hill & Horn, 2000).

Individuals with ABI often experience significant challenges in self-concept compared to individuals without ABI (Ponsford et al., 2014). The repercussions of ABI extend beyond the initial injury, impacting many aspects of survivors' lives and significantly altering their sense of self (Segal, 2010; Gelech et al., 2019; Keegan et al., 2022). The process of reconstructing self-concept post-ABI is complex, influenced by many factors, and can pose both positive and negative changes of self-concept (Lennon et al., 2014; Ponsford et al., 2014). For instance, research emphasizes the biological, psychological, and social factors that influence self-concept after ABI. Regarding changes of self-concept after ABI, Ellis-Hill and Horn (2000) highlight how individuals perceive a shift in their self-concept following a stroke, emphasizing the loss of coherence with their past and uncertainty about the future. A disruption like this may trigger symptoms such as anxiety and confusion, particularly when individuals experience difficulty reconciling their pre- and post-injury identities (Lennon et al., 2014). The consequences of ABI can range from death to varying degrees of disability, including changes in physical, cognitive, emotional, and behavioral functioning (Biegon, 2021; Gelech et al., 2019). These changes impact how individuals experience and understand themselves, often leading to a sense of loss, dependence, and identity struggle (Martin et al., 2015). On the other hand, significant challenges may allow individuals to reconstruct their self-concept in a more positive light, aiding in opportunities for personal growth (Lennon et al., 2014; Martin et al., 2015).

Researchers emphasize the importance of recognizing self-concept disruption as a critical aspect of ABI rehabilitation, highlighting the need for interventions that address the psychological consequences alongside physical impairments (Glntborg, 2015; Goldman et al.,

2022). Depending on the severity of the ABI, recovery time can last from days to a lifetime. Reconstructing self-concept post-ABI is a multifaceted process and is influenced by various factors at a biological, psychological, and social level (Segal, 2010; Mamman et al., 2023). The existing literature highlights the evolving nature of identity reconstruction with individuals experiencing a paradoxical sense of both continuity and change in their self-concept (Lennon et al., 2014). By recognizing the impact of these changes, the research underscores the significant impact of ABI on individuals' lives and their self-concept, with noted negative and positive changes in self-concept post-ABI (Curvis et al., 2018; Doering et al., 2011; Ponsford et al., 2014; Mamman et al., 2023). Individuals express a desire for integration, autonomy, interpersonal connections, and occupational roles, which can shape both self-concept and overall well-being (Martin et al., 2015). Challenges in achieving pre-injury standards and fulfilling societal roles contribute to discrepancies in identity, highlighting the need for interventions that support individuals in navigating these conflicts (MacQueen et al., 2020).

These studies assume critical importance in further understanding and expanding the nuanced evolution of self-concept over time in individuals with ABI (Doering et al., 2011; Ponsford et al., 2014; Martin et al., 2015; Curvis et al., 2018; Mamman et al., 2023). According to Brain Injury Canada (2024), approximately 4% of the population in Canada lives with either a TBI or Non-TBI, equating to over 1.5 million Canadians, and it is projected to rank among the most prevalent neurological conditions in Canada by 2031. However, despite the existing research, a notable gap regarding the comparative effectiveness of different therapeutic interventions for self-concept reconstruction in ABI rehabilitation. This gap underlines the need for research that systematically evaluates various interventions to determine effectiveness in fostering self-concept and well-being in survivors (Kelly et al., 2013; McCoy et al., 2020). Ultimately, delving into the lasting repercussions of ABI on self-concept, the research

contributes significantly to the field, offering insights that can inform tailored interventions, enhance rehabilitation strategies, and ultimately elevate the quality of life for those navigating the intricate journey post-ABI. Such interventions should encompass not only rehabilitation strategies aimed at navigating physical and cognitive challenges, as they should also offer approaches that foster self-concept reconstruction and promote psychological and emotional well-being.

This chapter will delve into investigating how ABI impacts self-concept and identify therapeutic interventions that effectively support ABI survivors. Literature indicates a range of changes—both positive and negative—post-ABI that significantly influence individuals' self-concept across various dimensions (Ponsford et al., 2014). Understanding these changes is crucial for utilizing evidence-based rehabilitation strategies that address physical and psychological consequences of ABI (Glintborg, 2015; Mamman et al., 2023). This chapter will outline the theoretical framework and highlight key concepts, such as ABI, self-concept, and therapeutic interventions. Additionally, this chapter will examine the researcher's reflexivity and positionality to acknowledge how personal experiences may shape the research process.

Research Problem

The research problem revolves around investigating and understanding how ABI affects self-concept and to identify therapeutic interventions that effectively support the reconstruction of self-concept for ABI survivors. Research shows a common thread of temporary and permanent changes, both positive and negative, that significantly affect an individual's daily life, specifically their self-concept (Lennon et al., 2014; Martin et al., 2015). These changes impact various aspects of functioning, including changes in self-concept across personal, familial, academic, and social dimensions, which can affect their adjustment, social interactions, and emotional well-being (Ponsford et al., 2014; Mamman et al., 2023). This adjustment in self-

concept reconstruction poses significant changes for individuals as they navigate their identity, roles, and relationships during the rehabilitation process (MacQueen et al., 2020).

For the focus of this study, the issue is highlighted in the literature as an impact of individuals' self-concept post-ABI. The literature emphasizes the need for comprehensive rehabilitation strategies that address both the physical and psychological consequences of ABI (Glintborg, 2015; Mamman et al., 2023). Further, the literature emphasizes the need for comprehensive rehabilitation strategies that address both the physical and psychological consequences of AB. This study is significant as it can contribute to the field of psychology and rehabilitation for those with ABI by enhancing services, interventions, and support systems to tailor to the unique needs of individuals with ABI. Additionally, it can enhance rehabilitation strategies and resources, promote psychological well-being, and improve the quality of life of individuals with ABI. The significance lies in its potential to explore the questions, "how does acquired brain injury (ABI) influence the self-concept of adult individuals? As well, what are the most effective therapeutic interventions for improving self-concept of adult individuals with ABI?"

Justification and Significance of the Study

ABI is a significant and growing public health concern in Canada (Brain Injury Canada, 2024). Nearly 4% of Canadians, over 1.5 million individuals live with ABI, with TBI being particularly common among young adults, and women are more likely to experience mental health challenges post-ABI, including depression, PTSD, anxiety, and personality changes. The risk of acquiring a brain injury increases with age, as adults 60 years and older account of 29% of all head injury hospitalizations in Canada. These statistics highlight the need to understand the impact of ABI on individuals' self-concept, the mental health challenges, and underscore the importance of utilizing evidence-based therapeutic interventions to support ABI survivors.

A comprehensive understanding of the impacts on individuals' self-concept and identity is crucial for developing effective therapeutic interventions tailored to the specific needs of ABI survivors because it allows clinicians to address the multifaceted challenges individuals with ABI face, including emotional instability, loss of autonomy, social roles, and the struggle for independence (Ponsford et al., 2014; Gelech et al., 2019; Mamman et al., 2023). Individuals with ABI often precipitate a sudden and drastic life change, compelling individuals to redefine themselves (Keegan et al., 2022). These changes can lead to discrepancies between pre-ABI and post-ABI selves, triggering distress and affecting individuals' abilities to adapt to new circumstances (MacQueen et al., 2020). They can also elicit positive changes and resilience for survivors that may enhance their sense of self (Mamman et al., 2023). Despite the need for interventions focused on self-concept and identity issues among ABI survivors, the current state of therapeutic practice remains inadequate in addressing these concerns, potentially leading to higher prevalence of mental health disorders such as depression, anxiety, and post-traumatic stress disorder (PTSD), which can further complicate the recovery process and hinder individuals' quality of life (Ponsford et al., 2014; Mamman et al., 2023). There is a lack of professional expertise and established intervention techniques specifically tailored to identity work post-ABI (Gelech et al., 2019). Additionally, the meaning of "identity" or "self-concept" and strategies for positive self-construction after ABI lack consistency and clarity within rehabilitative settings. In essence, this study aims to fill crucial gaps in the literature by exploring the intricacies of self-concept among ABI survivors and its effective therapeutic interventions. Understanding the impact of ABI can enhance the counseling field by enabling practitioners to adopt evidence-based interventions that address the unique challenges faced by individuals with ABIs. By recognizing potential disruptions and helping individuals navigate their changes, practitioners can implement established therapeutic strategies in supporting ABI survivors.

This study is significant as it addresses the crucial and often overlooked aspect of self-concept in individuals with ABI and provides a comprehensive understanding of the effects to improve the knowledge of effective therapeutic interventions in treating ABI survivors' self-concept. A key aspect of this study is its focus on how ABI survivors experience and understand the various changes occurring after brain injury. Researchers found that many ABI survivors struggle with negative changes in self-concept, highlighting the importance of reconstructing a positive self as part of the healing process (Gelech et al., 2019). This reconstruction is crucial for their adjustment and engagement in daily activities, relationships, and societal roles (Murray et al., 2022). Additionally, this study also acknowledges the potential for positive changes, as some individuals report that their injury has led to a positive self-reconstruction, including new skills, attributes, or perspectives that facilitate a reevaluation of life priorities (Lennon et al., 2014). These changes reflect the complexity of reconstructing self-concept and understanding these changes can enhance therapeutic interventions tailored to the needs of ABI survivors.

Furthermore, this study highlights the therapeutic interventions that include psychological support to enhance self-concept and emotional well-being. Practitioners need to address broader life changes, including physical, psychological, and social adjustments, to facilitate a positive reconstruction of self-concept (Ellis-Hill & Horn, 2000; Kelly et al., 2013). This approach aligns with the findings that suggest targeted rehabilitation programs and professional support are significant in the positive reconstruction of self after ABI (Gelech et al., 2019). By providing these insights, this study can also inform the development of patient-centered care plans that recognize and address the psychological and emotional aspects of recovery. This is essential for improving the overall quality of life for individuals with ABI and ensuring their successful reintegration into society (Vickery et al., 2005; Desdentado et al., 2021).

Despite existing research on self-concept for individuals with acquired brain injury (ABI)

and therapeutic interventions (McCoy et al., 2020), a gap remains in comprehensively understanding the dynamic changes and developing a diverse array of interventions to support these individuals effectively. By focusing on the complexities of identity reconstruction and implementing a range of evidence-based interventions, clinicians can provide tailored support that fosters resilience and enhances overall well-being. This study aims to contribute to the existing literature by explaining the complexity of self-concept among ABI survivors and informing evidence-based interventions to promote positive life adjustments for those affected by brain injury.

Theoretical Framework

This study will utilize identity formation as the theoretical framework. Herman (2011) suggests that this framework is particularly relevant as it allows individuals to establish a unique view of themselves, intricately connected to the concept of self-concept. This theoretical perspective posits that identity formation is an ongoing process that extends beyond adolescence into adulthood, aligning with Sokol's exploration of Erik Erikson's perspective (2006). Erikson emphasizes that self-concept and development are ongoing processes that can extend throughout the lifespan.

Erikson's theory posits that identity formation is a continuous process that involves integrating past, present, and future experiences to form a unified sense of self (Erikson, 1959). This concept is central to understanding how individuals construct their identities over time. According to Erikson, the successful resolution of psychosocial conflicts during different stages of life contributes to the development of a positive self-concept. However, unresolved conflicts or unsatisfactory resolutions may lead to negative attributes that interfere with further development and manifest in impaired self-concept and adjustment problems.

In adults with ABI, maintaining or establishing a coherent self-concept can be

challenging due to the significant multifaceted changes post-ABI (Curvis et al., 2018; Doering et al., 2011; Ponsford et al., 2014). These changes may disrupt the typical trajectory of identity formation, necessitating a closer examination of how individuals with ABI navigate the complexities of redefining their self-concept post-injury. This study acknowledges that the process of identity formation for individuals with ABI may deviate from typical human development.

Moreover, this study acknowledges the dynamic nature of identity formation in individuals with ABI (Herman, 2011; Sokol, 2006). These individuals may grapple with navigating a new sense of identity, considering both retained aspects of their pre-injury self and the adaptations required for life after the injury. This dual challenge emphasizes the importance of understanding how individuals with ABI construct and reconstruct their self-concept over time. This study also draws on Levack et al. (2014), as they found that changes in self-identity after ABI are recurrent themes in survivors' narratives, which may contribute to challenges in adjusting to life post-injury and influences overall quality of life, anxiety, and depression. Their findings emphasize the importance of evaluating self-identity based on clients' lived experiences, supporting this study's approach to using Identity Formation framework. By adopting the Identity Formation theoretical framework, this study aims to shed light on the intricate processes involved in the ongoing development of self-concept for individuals with ABI.

Key Terms

The key terms for this research question include the influence of ABI on self-concept and the therapeutic interventions that are effective for addressing this influence.

Acquired Brain Injury

Acquired Brain Injury (ABI) refers to damage to the brain that occurs after birth, which can profoundly impact a person's cognitive, emotional, and physical functioning. ABI survivors

frequently experience significant disruptions across various aspects of their lives, particularly in their ability to manage post-injury challenges such as cognitive impairments, emotional instability, and the loss of social roles and autonomy (Ponsford et al., 2014; Lennon et al., 2014). These injuries often lead to lower self-concept scores across multiple domains compared to healthy individuals, accompanied by pervasive feelings of undesirability, self-doubt, and perceptions of being a burden (MacQueen et al., 2020). ABI survivors also tend to report higher levels of depressive symptoms and reduced quality of life, characterized by increased unhappiness, worry, dissatisfaction, and a growing sense of dependency (Vickery et al., 2005; Ellis-Hill & Horn, 2000). The loss of autonomy and independence commonly experienced by ABI survivors further exacerbates emotional and psychological challenges, contributing to feelings of inadequacy and helplessness (Lennon et al., 2014; Martin et al., 2015; Murray et al., 2022). However, despite these challenges, many individuals with ABI demonstrate resilience and an ability to adapt to their new circumstances through reconstructing their self-concept and embracing personal growth (Lennon et al., 2014; Martin et al., 2015).

ABI Rehabilitation

ABI rehabilitation focuses on supporting individuals as they adapt to the physical, emotional, and psychosocial long-term challenges after sustaining a brain injury. It can incorporate physical, psychological, and social aspects that influence the well-being of ABI survivors. Managing identity disruptions is a key issue for survivors who may experience shifts in their self-concept, relationships, and roles in society (Segal, 2010). For instance, rehabilitation often focused on reintegration into everyday life, emphasizing the importance of social identity in promoting positive rehabilitation outcomes (Gelech et al., 2019). By addressing individual and collective identities, ABI rehabilitation can help survivors rebuild a sense of self, adapt to their new realities, and improve their quality of life.

Self-Concept

Self-concept refers to an individual's perception of themselves, including their beliefs, values, and feelings about who they are. For ABI survivors, self-concept is often significantly altered post-injury, reflecting both negative changes and opportunities for positive growth. Negative self-perceptions such as feeling undesirable, experiencing self-doubt, or perceiving oneself as a burden are closely tied to higher levels of depressive symptoms and reduced quality of life (Ponsford et al., 2014; Lennon et al., 2014). Survivors often face emotional challenges as they struggle with dependency, loss of autonomy, and a sense of inadequacy (Lennon et al., 2014; Martin et al., 2015). Conversely, some survivors experience positive transformation in their self-concept by developing new skills and discovering strengths like resilience, open-mindedness, and empathy (Martin et al., 2015). These personal attributes enable survivors to pursue meaningful relationships and goals aligned with their revised self-concept. This duality highlights the adaptive nature of self-concept after ABI, emphasizing the importance of rehabilitation strategies that not only address emotional and psychological losses but also promote resilience and personal development (Segal, 2010; Gelech et al., 2019; Desdentado et al., 2021).

Therapeutic Interventions.

Understanding and addressing the self-concept of individuals with ABI requires comprehensive and adaptable therapeutic interventions that consider the complex interaction of biological, psychological, and social factors influencing self-concept (Segal, 2010; Mamman et al., 2023). As well, considering rehabilitation strategies that focus on empowering individuals, promoting autonomy, building support networks and creating spaces for meaningful connection, and encouraging active participation in their recovery is noteworthy for positive self-concept reconstruction (D'Cruz et al., 2019; Gelech et al., 2019; Murray et al., 2022). These therapeutic

strategies create opportunities for ABI survivors to rebuild their self-concept through meaningful interactions and support networks. By integrating these diverse therapeutic approaches, rehabilitation professionals can effectively support ABI survivors in adjusting to life post-ABI and rebuilding a positive and resilient self-concept.

Researcher's Reflexivity and Positionality

Reflexivity requires careful reflection on the potential impact of the researcher's background on their research practice. Creswell and Creswell (2018) emphasize the importance of researchers considering how their personal background, culture, and experiences may shape their role in the study and influence their interpretations. In the context of exploring self-concept among individuals with acquired brain injury (ABI), reflexivity is crucial, as the researcher's clinical experiences and professional values may influence the research questions, methodology, and interpretation of results. This reflection is particularly relevant for a researcher-practitioner with experience working with individuals with ABI, as such involvement provides invaluable insights but also risks introducing biases that might favor personal experiences over those of the wider population.

The dual role of researcher and practitioner necessitates ongoing reflexivity to recognize and mitigate these biases. For example, the researcher's commitment to improving the well-being of individuals with ABI may unintentionally lead to an overemphasis on aspects of self-concept that align with their professional practices. Maintaining objectivity requires acknowledging how personal involvement in the field could shape research priorities and interpretations. Creswell and Creswell (2018) emphasize that reflexivity allows researchers to approach their work with greater self-awareness, ensuring the research remains objective and comprehensive.

In line with this, understanding positionality is essential. Soedirgo and Glas (2020) and

Wilson et al. (2022) argue that researchers must engage in reflexivity to examine how their biases, assumptions, and personal experiences shape the research process. On a personal level, the researcher's experiences with individuals with brain injury have prompted deep introspection, revealing both the resilience of those affected and the importance of approaching research with empathy and sensitivity. Professionally, these experiences have illuminated the need to consider the potential power dynamics in therapeutic relationships and the importance of fostering trust and safety within this alliance. Recognizing the researcher's positionality ensures that therapeutic interventions are inclusive and client centered.

Engaging in reflexivity has significantly influenced the researcher's academic journey, challenging them to critically examine the theoretical frameworks and practices guiding their work with brain injury. However, as Soedirgo and Glas (2020) note, while acknowledging the significance of reflexivity is important, consistently practicing it can be challenging. To address this, ongoing reflexive practice will be integrated into the research process for this capstone. Regular reflection, communication with supervisors, and consultation with colleagues will provide diverse perspectives and mitigate personal biases. This continuous self-reflection will help ensure the research's integrity and contribute to advancing knowledge and practice in the field of ABI rehabilitation.

Overview

ABI is caused by brain damage after birth, leading to temporary or permanent impairments (Goldman et al., 2022). Both TBI and non-TBI can disrupt individuals' physical, cognitive, emotional, and social functioning, significantly impacting their self-concept and quality of life (Doering et al., 2011; Ponsford et al., 2014). Research shows ABI can lead to negative changes, such as confusion, loss, and distress (Beadle et al., 2020; MacQueen et al., 2020), while also opening opportunities for personal growth and resilience (Murray et al., 2019).

Recognizing self-concept disruption as a critical aspect of ABI rehabilitation, highlighting the need for interventions that address the psychological consequences alongside physical impairments (Glintborg, 2015; Goldman et al., 2022). Chapter 2 will include a research methodological analysis used to explore self-concept and ABI rehabilitation, including data collection and analysis procedures from quantitative, qualitative, and review studies, and explore the ethical considerations and limitations in studying this complex subject. Chapter 3 reviewed and synthesized existing literature on self-concept and ABI, and different types of interventions employed to support ABI recovery, with a particular focus on self-concept. This contributed to the understanding of how ABI impacts self-concept and identity and interventions aimed at promoting emotional well-being. Furthermore, chapter 4 attempted to bridge theory and practice by demonstrating how research on ABI can be applied in clinical settings. The final chapter offers conclusions and clinical recommendations based on the findings from the previous chapters. These recommendations aim to improve ABI rehabilitation by utilizing evidence-based therapeutic interventions to meet the diverse needs of individuals with ABI. As well, it encourages and calls for further research to refine ABI rehabilitation.

Chapter Two: Methods

This chapter examines the procedures to review the existing literature regarding self-concept for individuals with Acquired Brain Injury (ABI) and effective therapeutic interventions. Within this review, the researcher will identify key articles to evaluate their impact on the interpretation of the findings in the review of the literature and finding common themes. These articles include quantitative, qualitative, and review studies to methodologically critique the strengths and limitations and provide insight for further recommendations. This critique aims to offer significant insight into this research area and assess the validity and reliability of the research methods used in the studies under review. Additionally, through a comprehensive review of the literature, this chapter derives key topical findings that shed light on the complexity between ABI, self-concept, and the effectiveness of various therapeutic interventions.

Literature Search Process

Throughout this search, many databases accessed to provide a comprehensive overview of self-concept for individuals with ABI. The databases included utilizing the online libraries of Concordia University of Edmonton and City University of Seattle, as well as Google Scholar, PsycINFO, Taylor & Francis Journals, and Wiley Online Library. The search terms consisted of key terms and combinations, such as “self-concept or self-worth or self-perception or self-esteem” AND “acquired brain injury or traumatic brain injury or head injury or TBI or abi”, including additional items of “adults, females, males, therapy, and implications” to narrow the search. This search involved utilizing numerous databases to conduct an extensive literature review of existing research. However, a notable challenge arose in locating recent literature, as the majority of studies were conducted more than five years ago. This presents a challenge in ensuring the current relevance of the findings, as older studies may not reflect the latest research or knowledge in understanding this field of study. Nonetheless, the research found provided a

comprehensive review, offering valuable insights into the topic at hand.

Inclusion and Exclusion Criteria

To ensure a comprehensive and relevant review of the literature, specific inclusion and exclusion criteria were established. The inclusion criteria focused on several key concepts or variables. This criterion was set to ensure that the review encompassed current literature as well as relevant studies that are closely connected with the topic of interest. These will help in interpreting the themes identified by the review of the literature. Based on the topic of this research, the studies that selected participants above 18 years old with ABI, either traumatic or non-traumatic causes, were retained for the review of the literature. It is expected that these studies will help examine the self-concept, self-identity, or self-esteem in these individuals, and to address how ABI affects the perception of the self and identity. Moreover, these selected articles will also help in explaining therapeutic implications of the interventions aimed at improving self-concept in ABI survivors. This review of the literature included empirical studies with quantitative, qualitative, and systematic reviews research designs. To ensure the quality and reliability of the information, only articles from peer-reviewed journals were selected.

Exclusion criteria included studies focusing on populations not specifically related to this topic, such as those with congenital brain injuries, developmental disorders, or pediatric populations. As well, research that did not address self-concept, self-identity, or self-esteem in the context of ABI, or therapeutic implications, were excluded. Finally, only articles that were published in English were included and articles from non-peer reviewed sources were excluded to ensure integrity of the published studies used for this research.

Selection of Articles

In selecting articles for this literature review, most studies focused on the negative changes in self-concept after an ABI, though there were a few that highlighted positive changes

and resilience. This literature review includes a mix of qualitative, quantitative, and review articles. Qualitative studies provided detailed personal stories and experiences, quantitative studies offered data on broader implications, and the review articles summarized existing research among the topic of ABI survivors and their self-concept and well-being.

Data Analysis Procedures

For this capstone, the data analysis procedures encompass a comprehensive literature review encompassing qualitative, quantitative, and review studies focusing on self-concept and therapeutic interventions for individuals with ABI. This analysis consists of a systematic search and selection of relevant peer-reviewed articles and synthesized insights across studies to understand the experiences and challenges faced by individuals with ABI (Creswell & Creswell, 2018). From this review, the gap and research question were answered, although further research could continue improving the knowledge of self-concept for individuals with ABI and effective therapeutic interventions for rehabilitation.

This methodological analysis consists of ten core articles as being reviewed for their research paradigms, role of researchers, sampling and recruitment of the participants, validity and reliability, data collection and data analysis. Analyzing and synthesizing these components is crucial for identifying gaps and limitations in the existing literature and for offering informed recommendations for future research. ABI is an emerging field, reviewing existing literature and highlighting important factors within this area can be essential for advancing the discipline. A critical analysis of the ethical considerations pertinent to the research is detailed in Chapter Three, with limitations, conclusions, and recommendations discussed throughout this chapter and summarized in Chapter Five.

Methodological Strengths and Limitations

Within this capstone, it is demonstrating several strengths that contribute to a comprehensive review of the literature. A key strength is the comprehensive literature search that included multiple databases and the use of specific search terms ensured a thorough and extensive review. Another strength is the clear inclusion and exclusion criteria used to maintain focus on relevant studies within the last five years to capture current research on ABI. However, it also includes studies outside this timeframe to provide context and established knowledge among this field. Additionally, by including quantitative, qualitative, and systematic review studies, the research provides a multifaceted exploration of ABI's impact on self-concept with a combination of statistical data and personal experiences to allow for stronger analyses. The ethical considerations are also adhered to significantly, adding credibility and ensuring that the findings are ethically reliable and valid, especially when working with vulnerable populations such as individuals with ABI.

Despite these strengths, the review has notable limitations that should be considered, one of them is the limited scope of recent literature. Although the methodology consisted of literature within the past five years, this criterion was difficult as many studies were conducted over five years ago. Utilizing studies conducted over five years ago may reduce the relevance and applicability of the findings; hence, needing more future studies surrounding this topic area. Additionally, despite strong efforts to maintain objectivity throughout the capstone project the researcher's own background and experiences may have influenced how findings were perceived and prioritized, thus potentially portraying researcher bias. Thus, while bias was managed through structured methodologies, it may remain as an intrinsic limitation. Recognizing these limitations is crucial for maintaining transparency and for readers to critically assess the

synthesis and interpretations of existing literature and encourage future research to prevent researcher bias to enhance the credibility and reliability of research findings.

Table 1

Reference List of Selected Studies

Author	Year	Title	Journal	Type
Beadle et al.	2020	Personality characteristics and cognitive appraisals associated with self-discrepancy after severe traumatic brain injury	<i>Neuropsychological Rehabilitation</i>	Quantitative
D’Cruz et al.	2019	Personal narrative approaches in rehabilitation following traumatic brain injury: A synthesis of qualitative research	<i>Neuropsychological Rehabilitation</i>	Scoping Review
Desdentado et al.	2021	Exploring the role of explicit and implicit self-esteem and self-compassion in anxious and depressive symptomatology following acquired brain injury	<i>Mindfulness</i>	Quantitative
Gelech et al.	2021	Construction robust selves after brain injury: positive identity work among members of a female self-help group	<i>Neuropsychological Rehabilitation</i>	Qualitative
Keegan et al.	2022	Anger and aspirations: Linguistic analysis of identity after traumatic brain injury	<i>Neuropsychological Rehabilitation</i>	Qualitative
MacQueen et al.	2020	A qualitative investigation of masculine identity after traumatic brain injury	<i>Neuropsychological Rehabilitation</i>	Qualitative
Mammann et al.	2023	Biopsychosocial factors of quality of life in individuals with moderate to severe traumatic brain injury: A scoping review	<i>Quality of Life Research</i>	Scoping Review
McCoy et al.	2020	Acceptance and commitment therapy: A systematic review of psychological adjustment and reduction of psychological distress	<i>Journal of Addiction Psychiatry Mental Health</i>	Review

		following a traumatic brain injury in adults		
Murray et al.	2022	Perspectives of choice and control in daily life for people following brain injury: A qualitative systematic review and meta-synthesis	<i>Health Expectations</i>	Review
Villa et al.	2021	Experiences that challenge self-identity following traumatic brain injury: a meta-synthesis of qualitative research	<i>Disability and Rehabilitation</i>	Systemic Review

Strengths and Limitations of the Reviewed Studies

This methodological critique aims to assess the validity and reliability of research methods used in the selection of the ten core articles that explore self-concept among individuals with ABI. The chosen articles offer a comprehensive inspection of this critical topic, encompassing a diverse range of research designs. Specifically, the collection includes two quantitative studies, three qualitative studies, and five review studies. This variety allows for a robust synthesis of themes and findings, providing a thorough understanding of how self-concept is shaped and affected in individuals with ABI. Through a critical evaluation, the strengths and limitations of the methodologies employed across these studies were revealed, highlighting areas of both robust findings and potential gaps. This critique aims to provide insights that can guide future research and contribute to the advancement of knowledge in this field, while emphasizing that the identified limitations should be considered when interpreting the findings of the literature review.

Quantitative Studies

Two significant quantitative studies in this capstone, as noted in Table 1, Beadle et al. (2020) and Desdentado et al. (2021), operate under a postpositivist framework, focusing on the

psychological factors influencing recovery in individuals with ABI. Both studies emphasize the systematic methodologies to explore causal relationships between psychological constructs and recovery outcomes (Creswell & Creswell, 2018). They adhered to ethical research standards, including informed consent and participant confidentiality, contributing to valuable insights into the psychological impacts of ABI and informing potential therapeutic interventions. Beadle et al. (2020) leveraged community-based recruitment and a matched control group to compare individuals with ABI to healthy counterparts, while Desdentado et al. (2021) used a convenience sample focused solely on ABI participants within rehabilitation contexts. This distinction highlights the different methodological approaches that enrich the understanding of self-concept in ABI recovery.

Beadle et al. (2020) and Desdentado et al. (2021) employed strong methodologies, using validated instruments such as the Rosenberg Self-Esteem Scale (RSES) and Life Orientation Test – Revised (LOT-R), ensuring reliable measurement of psychological constructs. Their ethical rigor, including informed consent and confidentiality, further strengthens the credibility of their findings. Additionally, Beadle et al. (2020) included a control group, allowing for direct comparisons, and both studies utilized rigorous statistical analyses, enhancing the reliability of their results.

However, limitations in both studies impact the interpretation of their findings. Small sample sizes limit the generalizability of the results, with Beadle et al. (2020) focusing on individuals from a specific rehabilitation program and Desdentado et al. (2021) using a convenience sample. Beadle et al. (2020) also faced potential inconsistencies in data collection methods (e.g., telephone, mail, face-to-face), which could affect data reliability. While Desdentado et al. (2021) controlled for variability by conducting assessments in a structured setting, this reduced the external validity of their findings. Furthermore, Desdentado et al. (2021)

had a low post hoc power (31.61%), and the absence of mediation analysis limits the depth of their conclusions. These limitations suggest the need for larger, more diverse samples and further methodological refinement.

Qualitative Studies

The qualitative studies noted in Table 1 highlight strengths and limitations that influence the interpretation of findings. MacQueen et al. (2020), Keegan et al. (2022), and Gelech et al. (2019) all use constructivist paradigms, providing valuable insights into how ABI affects identity and self-concept through methodologies such as Interpretive Phenomenological Analysis (IPA), ethnographic interviews, and social constructionism.

A strength of these studies is the collaborative approach used in data collection and analysis, ensuring rigor and accuracy. For instance, multiple authors reviewed themes in MacQueen et al. (2020), and Keegan et al. (2022) employed secondary transcription to improve accuracy. However, a limitation is the lack of researcher reflexivity, which could introduce bias in data interpretation. Further, each study had specific sampling criteria that limit generalizability. MacQueen et al. (2020) and Keegan et al. (2022) focused on male participants, and Gelech et al. (2019) only included females. The small sample sizes (e.g., 10 participants in MacQueen et al. (2020) and 3 in Keegan et al. (2022)) also restrict broader applicability.

While the studies used diverse data collection methods, such as interviews and audio recordings, these methods also have limitations. For example, self-reported data in MacQueen et al. (2020) may introduce bias, and the long duration since injury in Keegan et al. (2022) may affect relevance to those in earlier recovery stages. Despite efforts to ensure validity and reliability, the small and homogenous samples reduce the generalizability of the findings. These studies provide valuable insights into ABI's impact on self-concept, though their methodological imitations—such as small sample sizes and potential researchers biases—should be considered

when interpreting their results.

Systematic Review Studies

There are five systematic review studies as listed in Table 1. McCoy et al. (2020) uses a postpositivist approach to assess ACT's effectiveness for ABI, offering reliable findings though lacks depth in subjective experiences. Murray et al. (2022) and Villa et al. (2021) offer rich qualitative insights though are limited by their focus on qualitative research, reducing generalizability. D'Cruz et al. (2019) and Mamman et al. (2023) use scoping reviews, which are practical though lack depth in exploring individual experiences. All studies were collaborative, though were limited in their findings and more transparency in reporting individual contributions is needed to avoid potential biases. Data extraction methods were thorough, though McCoy et al. (2020) lacked detailed participant data, and Villa et al. (2021) and D'Cruz et al. (2019) relied on subjective thematic synthesis, which could introduce potential bias. Mamman et al. (2023) did not perform a quality appraisal, which weakened the reliability of their findings. Additionally, although McCoy et al. (2020) and Murray et al. (2022) used quality tools, there may still be bias in interpretation. Villa et al. (2021) and D'Cruz et al. (2019) conducted coding with consensus discussions, yet also still face bias, and Mamman et al. (2023) lacked a quality appraisal, which undermines the reliability of its results.

As gleaned from the above analysis, the studies included provide significant insights into the self-concept of individuals with ABI, though each comes with notable methodological strengths and limitations. The quantitative studies, Beadle et al. (2020) and Desdentado et al. (2021), offer reliable results through validated instruments and rigorous statistical analysis, though are constrained by small studies and potential inconsistencies with data collection. The qualitative studies, MacQueen et al. (2020), Keegan et al. (2022), and Gelech et al. (2019), offer rich, detailed insights into the subjective experiences of ABI, though contain small, homogenous

samples and potential researcher bias, limiting generalizability. Finally, the systematic review studies provide a broad overview of therapeutic approaches, though their reliance on subjective synthesis and lack of methodological rigor in some cases reduce the overall reliability of their conclusions. While these studies collectively contribute valuable knowledge to the field of ABI and self-concept, future research should address these limitations by increasing sample diversity, improving transparency in methodology, and enhancing the quality of data analysis.

Chapter Three: Literature Review

In exploring the dynamics of self-concept post-Acquired Brain Injury (ABI) and its practical therapeutic implications to provide valuable insights into the multifaceted nature of this phenomenon, this section examines the existing literature spanning an overview of ABI on self-concept. This section will synthesize and discuss the findings of the literature to provide a thorough understanding of the influence of self-concept after acquired brain injury and its effective therapeutic interventions. Following this, this section will address the ethical considerations associated with the core articles to aid in understanding ethical dimensions as crucial components to maintain integrity and dignity of individuals with ABI.

Self-Concept of Individuals with Acquired Brain Injury

ABI survivors confront a multitude of challenges compared to individuals without ABI, including alterations in their self-concept, which plays a fundamental role in shaping their identities and navigating post-injury life (Segal, 2010; Ponsford et al., 2014; Gelech et al., 2019). Self-concept shapes how individuals perceive and interact with the world around them (Rosenberg, 1965). Following ABI, individuals often experience significant alterations in their self-concept across various domains (Ponsford et al., 2014; Beadle et al., 2020). The impact of ABI on self-concept may differ based on the type of injury experienced. While stroke and head injury have distinct consequences, both conditions can lead to changes in self-concept as individuals navigate their relationships with their bodies, families, and society (Ellis-Hill & Horn, 2000).

The repercussions of ABI are far-reaching, affecting many aspects of survivors' lives and significantly altering their sense of self (Segal, 2010; Gelech et al., 2019; Keegan et al., 2022). Post-ABI, individuals grapple with shifts in identity, cognition, behavior, and emotional regulation, encompassing the interaction of biological, psychological, and social factors within

the rehabilitation process (Lennon et al., 2014; McCoy et al., 2020; Mamman et al., 2023).

Amongst these shifts, individuals may struggle with activities of daily living, maintaining social roles and interpersonal relationships, or returning to work or leisure activities (Kelly et al., 2013; Desdentado et al., 2021; Murray et al., 2022). The rehabilitation journey following ABI is indeed multifaceted, involving an individual's adjustment process as they cope with numerous changes (McCoy et al., 2020). This process often entails a growing self-awareness of new capacities and the importance of engaging in meaningful activities, particularly during the transition back to the community and their daily lives (Murray et al., 2022).

The transition from being well and able to suddenly becoming "disabled," as several participants constructed of themselves in Glinborg's (2015) study, profoundly affects an individual's identity post-ABI. Participants struggle with a sense of being the same yet different, with this difference in self stemming from external labels imposed by others and personal experiences of change. Participants' narratives in the study by Ponsford et al. (2014) reveal sensitivity to language used by professionals and others, indicating that societal perceptions and interactions can profoundly impact self-concept. Additionally, reconstructing self-concept post-ABI is complex and influenced by additional factors, including the individual's injury experience, positive and negative changes, the rehabilitation process, and personal coping mechanisms, as stated by Lennon et al. (2014).

Some individuals perceive their injury as contributing positively to their sense of self, facilitating the acquisition of new skills or perspectives that prompt reevaluating life priorities (Lennon et al., 2014). However, others report struggling with negative self-evaluations, feeling unable to continue with identity-related roles, and experiencing a sense of alienation from their pre-injury selves. Such alterations in self-concept are not limited to specific types of ABI; instead, they are observed across diverse conditions, highlighting the pervasive nature of these

changes (Ponsford et al., 2014; Beadle et al., 2020).

The reconstruction of self-concept emerges as a critical aspect of the healing process, as individuals strive to make sense of their changed circumstances and redefine their identities within the context of ABI-induced impairments. Despite enhanced recognition of the importance of self-concept reconstruction after ABI, research on positive identity work is still emerging (Gelech et al., 2019). This literature review underscores the pressing need for further investigation among this population, and for the development of effective evidence-based interventions and professional support to facilitate positive adjustments in self-concept post-injury.

Effective Therapeutic Interventions

Understanding the effect of evidence-based therapies on self-concept in individuals with acquired brain injury (ABI) requires a comprehensive exploration of various therapeutic approaches. These interventions are designed to address the multifaceted challenges posed by ABI, considering the biological, psychological, and social dimensions of rehabilitation. Integrating these dimensions within the biopsychosocial framework, tailoring interventions to individual needs, and enhancing social connectedness and support form the core of effective therapeutic strategies. This section delves into the significant impact of these evidence-based therapies, structured into specific sub themes of evidence-based therapies in the literature.

Acceptance and Commitment Therapy (ACT). ACT is a potential intervention for individuals with ABI, as McCoy et al. (2020) offer an encouraging perspective on ACT's effectiveness concerning self-concept and psychological adjustment post-ABI. Their findings indicate that ACT is effective in helping individuals with ABI maximize their acceptance of life through a values-based approach by targeting avoidance behaviors (McCoy et al. 2020). This approach enables individuals to engage more fully with their lives despite the challenges posed

by their injuries.

McCoy et al. (2020) highlight ACT's significant impact on reducing psychological distress among younger and middle-aged adults (18-49 years), who benefit from higher cognitive resilience and the ability to pursue higher learning or job performance. However, ACT was less effective for older participants (50+ years), likely due to declining health and chronic diseases that impair stress response and resilience. ACT was more effective for individuals with mild brain injury compared to those with moderate or severe, likely because mild brain injury individuals experience quicker relief from symptoms and more immediate integration of health services over moderate to severe individuals, leading to more significant challenges in psychological adjustment. Moreover, ACT showed greater effectiveness in reducing anxiety among ABI individuals, although its impact on depression and stress was less pronounced. This suggests that while ACT is beneficial, additional therapeutic approaches might be necessary to address significant concerns fully.

Further supporting ACT's potential, Sander et al. (2021) demonstrate that ACT has a beneficial effect on psychological distress in persons with complicated mild, moderate, or severe ABI. Their study found that ACT improved psychological flexibility and committed action, and ACT was associated with an increased commitment to acting toward personal values-based goals despite ongoing challenges. Participants with higher psychological flexibility and commitment to values-based actions post-treatment experienced better outcomes, including reduced psychological distress (Sander et al., 2021). By fostering psychological flexibility and a commitment to acting towards values-based actions, ACT can assist individuals with ABI in redefining their self-concept. It can allow individuals to view themselves as capable of pursuing meaningful goals despite ongoing challenges.

Overall, McCoy et al. (2020) and Sander et al. (2021) provide evidence that ACT can be

a valuable intervention for individuals with ABI, particularly in enhancing self-concept and reducing psychological distress and adjustment. For McCoy et al. (2020), ACT is more valuable to younger adults and those with milder injuries; however, its effectiveness varies with age and injury severity, indicating the need for tailored interventions to address unique challenges faced by subgroups of ABI individuals. These findings highlight the importance of effective treatment approaches to maximize therapeutic outcomes and improve quality of life for diverse ABI populations.

Family-Focused Interventions. Kelly et al. (2013) hypothesized that involving family members in therapeutic interventions would provide a supportive social network, enhance problem-solving abilities, and improve overall family functioning. This, in turn, was expected to positively influence individuals' global self-concept and specific domains such as family, personal, social, moral, physical, and academic aspects. However, a relatively short intervention program could not significantly change self-concept ratings and long-term emotional adjustment issues. Additionally, Verhaeghe et al. (2005) emphasize how ABI disrupts family homeostasis, which requires family members to adapt to a new equilibrium within the family system. In particular, partners often experience more psychological complaints and higher levels of depression and crises, young families faced with financial difficulties face overwhelming stress, and if the caregiver has existing psychiatric or medical history, the stress and anxiety levels are higher compared to other family members. These challenges can further complicate the individual's recovery process and impact their self-concept; thus, family-focused interventions should prioritize supporting the family system (Kelly et al., 2013). By reducing stress, preventing conflicts with caregivers, and promoting effective coping strategies, these interventions can help stabilize the family environment, which can be crucial for individuals with ABI to focus on rebuilding their self-concept without being overwhelmed by family-related stressors. Though

family-focused interventions alone may not be sufficient to bring about significant changes in self-concept for individuals with ABI, they can create a supportive environment that can complement other therapeutic approaches, such as individual counseling to address the complexity and multifaceted nature of self-concept concerns following ABI.

Gender-Specific Interventions. Research highlights the need for gender-specific interventions or consideration for individuals with ABI. McCoy et al. (2020) and MacQueen et al. (2020) found that males, often affected by ABIs from risk-taking behaviors, face unique challenges that disrupt traditional notions of masculinity. Men may experience loss of independence, control, and roles as fathers, providers, and individuals within social groups, leading to feelings of embarrassment, inadequacy, and shame. This discrepancy can lead to emotional regulation issues, altered self-perception, and a diminished sense of masculinity. Furthermore, the invisible nature of brain injuries at times allowed men to maintain aspects of their pre-injury social identity, though it could also lead to feelings of shame and a sense of not meeting masculine expectations. Valera et al. (2022) emphasize the need for rehabilitation programs to consider the impact of ABI on masculine identity and actively facilitate positive identity development among male survivors.

Females also undergo significant identity challenges following ABI and must navigate various challenges as they reconstruct their self-concept post-injury (Gelech et al., 2019). Mamman et al. (2023) highlight that females tend to report lower health-related quality of life compared to males and are at a heightened risk of experiencing depressive symptoms post-ABI, exacerbating the negative impact on their quality of life and self-concept. It is also common for females to feel a sense of infantilization and incompetence after ABI (Gelech et al., 2019). Gelech et al. (2019) implemented female support groups to foster a sense of competence and solidarity among female survivors. Gender specific support groups allow women to assert their

positive traits and abilities, engage in reflective exercises, and share their experiences in a safe and supportive environment. They also allow women to discuss motherhood, gender oppression, and sexuality, fostering a connection to womanhood. These groups enhance females' self-worth and self-concept, help normalize challenges, and counteract feelings of shame or deviance, promoting a sense of belonging. However, Valera et al. (2022) accentuates the significant gaps in understanding female-specific outcomes and interventions in ABI research, indicating a critical need for gender-specific approaches in rehabilitation practice. Ultimately, gender-specific interventions or considerations can aid in addressing the unique challenges faced by both male and female survivors of ABI as they provide tailored support to meet the needs of each gender, promoting positive self-concept and overall well-being.

Choice and Empowerment in Interventions. Murray et al. (2022) highlights the importance of offering choice and empowerment as an effective intervention for improving self-concept after ABI. They indicate that empowerment can be staged into rehabilitation pathways, where individuals with ABI are involved in education, understanding responsibilities, and decision-making. Initially, individuals with ABI experience a loss of choice and control as they transition from the patient role to their daily life and as they transition out of acute care, a dynamic shift is needed to enable the emergence of choice and control tailored to their needs.

As further explored in Murray et al.'s (2020) study, offering choice in working toward personal goals empowers individuals to exercise agency and self-determination. They report that community-based services can support this by pivoting towards enabling discussions about agency and self-efficacy. As individuals understand and accept the impact of their ABI, conversations about managing dependencies while restoring choice and control become crucial. This approach can aid recovery and enhance self-concept by allowing individuals to regain autonomy and self-purpose.

Support Groups. Support groups enhance self-concept after Acquired Brain Injury (ABI) by fostering social connectedness and providing a supportive environment. Segal (2010) emphasizes the importance of social continuity and group membership in neuropsychological rehabilitation, highlighting how social identity reconstruction is essential for positive outcomes post-ABI. Engaging in support groups helps individuals re-establish lost identities by offering a sense of belonging and community. For instance, narrative storytelling and validation within supportive relationships are critical components of influential support groups (D'Cruz et al., 2019). By sharing their stories and receiving peer validation, individuals with ABI can construct positive self-narratives and regain a sense of purpose and self-worth. Lennon et al. (2014) note that strategically placing oneself about others and participating in meaningful activities further promotes positive self-concept reconstruction.

Group therapy, as a form of support group, provides a safe space for ABI survivors to connect with others who share similar experiences and challenges (Gelech et al., 2019). Within this supportive environment, survivors can express their feelings, receive empathy, and gain affirmation. Group activities such as storytelling, problem-solving, and skill-building exercises facilitate social interaction and provide cognitive stimulation and coping strategies. Further, support groups challenge negative self-perceptions and beliefs by offering affirmation, encouragement, and constructive feedback from peers. This supportive atmosphere helps individuals rebuild their self-esteem, confidence, and self-concept after ABI. The sense of belonging, emotional support, and collaborative learning within support groups empower survivors to navigate their rehabilitation journey more effectively.

Overall, support groups are a vital component of enhancing self-concept and facilitating rehabilitation for individuals coping with ABI. By providing social connectedness, narrative validation, and collaborative activities, support groups contribute significantly to positive

identity reconstruction and adjustment to post-injury life (Lennon et al., 2014; D’Cruz et al., 2019; Gelech et al., 2019). Practitioners should incorporate support groups into their strategies to meet individuals' unique needs and preferences with ABI, ensuring a holistic approach to their recovery.

Findings from the Literature

The following section presents key findings from the literature on self-concept and therapeutic interventions for individuals with ABI. Research has continuously highlighted the complexity of self-concept for individuals with ABI, emphasizing the need for effective targeted interventions for rehabilitation. The findings from the literature are noted in Table 1, accentuating impacts of ABI on self-concept, factors influencing self-concept after ABI, and impacts of evidence-based therapies on self-concept.

Table 2
Overview of Findings

Themes	Sub-Themes	Cited Articles
Impact of Acquired Brain Injury on Self-Concept	<ol style="list-style-type: none"> 1. Negative Changes and Loss 2. Positive Changes and Resilience 	Ellis-Hill & Horn (2000) Vickery et al. (2005) Gelech et al. (2019) Lennon et al. (2014) Ponsford et al. (2014) MacQueen et al. (2020) Martin et al. (2015) Murray et al. (2022)
Factors Influencing Self-Concept After Acquired Brain Injury	<ol style="list-style-type: none"> 1. Biological Factors 2. Psychological Factors 3. Social Factors 	Ellis-Hill & Horn (2000) Segal (2010) Ponsford et al. (2014) Martin et al. (2015) Gelech et al. (2019) MacQueen et al. (2020) McCoy et al. (2020) Goldman et al. (2022)

		Valera et al. (2022) Mamman et al. (2023)
Impact of Evidence-Based Therapies on Self-Concept	<ol style="list-style-type: none"> 1. Neurobiological Level 2. Intrapsychic Level 3. Interpersonal Level 	Kelly et al. (2013) Lennon et al. (2014) D’Cruz et al. (2019) Gelech et al. (2019) McCoy et al. (2020) Murray et al. (2022)

Impact of Acquired Brain Injury on Self-Concept

Understanding the changes in self-concept following acquired brain injury (ABI) is essential for developing effective rehabilitation strategies and promoting positive outcomes for survivors. This literature review highlights two distinct findings: negative changes and positive changes. The negative changes encompass feelings of undesirability, doubts about self-worth, and perceptions of burden and loss of autonomy. Research by Ponsford et al. (2014), Vickery et al. (2005), and Lennon et al. (2014) highlights the profound impact of ABI on individuals' self-concept and emotional well-being, revealing lower self-concept scores, heightened depressive symptoms, and decreased quality of life. Conversely, the positive changes illustrate the capacity for resilience and positive growth among ABI survivors. Lennon et al. (2014) and Martin et al. (2015) emphasize the ability of individuals to reconstruct their self-concept in a positive light despite facing significant physical and cognitive challenges. These findings underscore self-concept's dynamic nature post-ABI, highlighting challenges and opportunities for personal growth and adaptation in the face of adversity. By examining these themes, this review aims to provide a comprehensive understanding of the changes in self-concept after ABI and their therapeutic implications for rehabilitation interventions.

Negative Changes and Loss. ABI poses a significant challenge to one's self-concept and

identity. Individuals with ABI contend with diverse alterations in their physical, cognitive, and behavioral functioning, which profoundly shape their perceptions and interpretations of themselves (Gelech et al., 2019). Ponsford et al. (2014) found that ABI survivors reported significantly lower self-concept across various domains compared to healthy controls, with feelings of being 'undesirable' and doubts about self-worth prevalent among ABI participants. Vickery et al. (2005) further elucidate the link between self-concept and emotional functioning, with lower self-concept associated with higher levels of depressive symptoms and lower quality of life.

Additionally, Ellis-Hill & Horn (2000) reveal that their participants expected to experience an improved self-concept within a year. However, they reported pervasive negativity across all facets of self-concept, characterized by increased levels of unhappiness, worry, dissatisfaction, forgetfulness, and dependency. The existing literature highlights the significant impact of ABI on individuals' self-concept and emotional well-being, as evident by lower self-concept scores, heightened depressive symptoms, and decreased quality of life among ABI survivors. Despite expectations of improvement, individuals often experience pervasive negativity across various domains of self-concept post-injury.

Research conducted by Lennon et al. (2014) highlights negative changes individuals may experience in their sense of self following ABI. Individuals may harbor negative self-perceptions, viewing themselves as burdens on others due to their limitations and inability to fulfill identity-related roles. Similarly, MacQueen et al. (2020) note the difficulties for ABI survivors to perceive themselves as burdens to their partners or experience insecurity when comparing themselves to others. This sense of burden, as also discussed by Lennon et al. (2014) and Martin et al. (2015) is compounded by feelings of lost autonomy and independence, particularly prevalent among ABI individuals. ABI survivors feel stagnant and isolated over

time, perceiving themselves as burdens on their social networks, encompassing both practical aspects, such as needing assistance with daily tasks, and emotional burdens related to feelings of dependence and decreased autonomy.

The loss of autonomy described by Lennon et al. (2014) is more than a physical limitation, as it can disrupt various aspects of an individual's life. This loss may encompass emotional and psychological factors and exacerbate feelings of inadequacy and dependency. Murray et al. (2022) further emphasizes the inherent loss of choice and control experienced by individuals following ABI, particularly as they transition from care in the hospital setting to reclaiming autonomy in their recovery journey. The inability to maintain control over finances and significant life decisions, as highlighted by MacQueen et al. (2020), adds another layer to this loss of autonomy. Additionally, discrepancies identified in ideals such as self-reliance, autonomy, and being in control underscore the challenges individuals face in reconciling their pre-injury selves with their current reality. These findings collectively underscore the profound impact of ABI on individuals' self-concept and self-worth as they navigate numerous changes and losses throughout their recovery process (Lennon et al., 2014; MacQueen et al., 2020; Murray et al., 2022).

Positive Changes and Resilience. ABI represents a significant moment in individuals' lives, highlighting a profound shift in their self-concept and place in the world. Despite the challenges and adversities accompanying ABI, research by Lennon et al. (2014) and Martin et al. (2015) emphasize positive changes and resilience among ABI survivors. Lennon et al.'s (2014) findings included the ability of individuals with ABI to reconstruct their self-concept in a positive light. Although these individuals face considerable physical and cognitive challenges, many individuals describe their post-injury experiences as contributing positively to their sense of self. They articulate newfound skills, illustrating their capacity for growth and adaptation in

adversity.

Moreover, Lennon et al. (2014) demonstrate that individuals with ABI have enhanced self-attributes and perspectives due to their experiences. Survivors describe becoming stronger, more open-minded, and empathetic towards the struggles of others. These positive changes contribute to personal growth and foster deeper connections with others and a broader appreciation of the human experience. Further, Martin et al. (2015) highlights how individuals with ABI navigate the recovery process, often seeking meaningful relationships and pursuing goals that align with their newfound perspectives. Regardless of the challenges posed by their injuries, individuals demonstrate resilience in adapting to these shifting priorities, portraying determination in creating fulfilling lives post-injury.

Martin et al. (2015) further emphasizes how survivors embrace the journey of personal development, recognizing the gradual evolution of self-concept over time. Although individuals with ABI face challenges and setbacks, they show commitment to their growth and adaptation to life post-ABI and embody the resilience that aids in their recovery journey. The literature on positive changes and resilience following ABI offers valuable insights into the transformative power of adversity. Despite the challenges that ABI places on individuals, they can still demonstrate remarkable resilience, embracing positive self-narratives and navigating their self-concept and life priorities. Their journey highlights growth and adaptation throughout recovery and may offer hope and inspiration to others facing similar challenges.

Factors Influencing Self-Concept After Acquired Brain Injury

Understanding the factors influencing self-concept after brain injury is crucial in providing effective support and rehabilitation. Self-concept undergoes significant changes following brain injury, and several studies have explored various dimensions of self-concept and the factors that contribute to its alteration post-ABI. This search spans biological, psychological,

and social dimensions, each significantly influencing self-concept post-ABI. Biological factors emphasize how variables such as sex, injury severity, cognition, age, and time since injury impact individuals' self-concept trajectories (Mamman et al., 2023; Valera et al., 2022). Gender-specific challenges for female survivors and societal expectations of masculinity for males contribute to distinct patterns of self-concept reconstruction (MacQueen et al., 2020; Goldman et al., 2022). Cognitive impairments further complicate individuals' abilities to navigate self-concept post-ABI, emphasizing the critical role of tailored interventions and support strategies (Goldman et al., 2022).

Alongside biological factors, psychological and social factors also significantly contribute to self-concept post-ABI. Psychological factors, including depression, anxiety, and coping strategies, intertwine with self-concept, shaping individuals' emotional adjustment and quality of life (Ponsford et al., 2014; Mamman et al., 2023). Similarly, social factors such as employment status, community integration, and familial relationships profoundly influence individuals' sense of identity and belongingness, highlighting the importance of comprehensive approaches to rehabilitation and support (Mamman et al., 2023; MacQueen et al., 2020). Understanding these influences is essential for tailoring supports and interventions to enhance self-concept and overall well-being for individuals navigating life post-ABI. This exploration seeks to emphasize the complexity of self-concept after ABI and offer insight into these influences that may shape ABI survivors' self-concept.

Biological Factors. Biological factors are a significant influence on self-concept following ABI. Research by Mamman et al. (2023) highlights various factors shaping self-concept after acquired brain injury (ABI), noting that sex, injury severity, cognition, age, and time since injury exert significant influences. Among the 19 biological factors studies, sex emerges as a significant determinant as it portrays a key role in shaping self-concept after ABI.

Females generally reporting lower QOL than males, potentially due to shorter hospital stays and less intensive rehabilitation. In highlighting sex differences in self-concept after ABI, the experiences can vary based on gender and, in particular, with female survivors facing distinct challenges and coping mechanisms. Females tend to report lower health-related quality of life compared to males, potentially due to shorter hospital stays and less intensive rehabilitation post-ABI (Mamman et al., 2023).

Moreover, females are at a heightened risk of experiencing depressive symptoms post-ABI, exacerbating the negative impact on their quality of life and self-concept. Gelech et al. (2019) provide insight into the gender-specific challenges faced by female survivors in reconstructing their identities post-injury. Through reflective exercises and supportive group environments, female survivors actively assert positive self-attributes and competencies, striving to maintain a sense of personal continuity and resist narratives of incompetence and infantilization. The women's group is a safe space for female survivors to discuss and affirm their gender identities, fostering solidarity and resistance against social and institutional degendering. However, Valera et al. (2022) highlight the significant gaps in understanding female-specific outcomes and interventions in ABI research, indicating a critical need for gender-sensitive approaches in rehabilitation practice. These findings underscore the importance of addressing gender-specific experiences and challenges in supporting the self-concept and identity reconstruction of female ABI survivors.

Male experiences of self-concept post-ABI are multifaceted and can be influenced by societal expectations of masculinity (MacQueen et al., 2020). McCoy et al. (2020) suggest that males may be more prone to traumatic brain injuries (TBIs) due to risk-taking behaviors, potentially leading to disruptions in their self-concept. MacQueen et al. (2020) highlight the profound impact of ABI on various aspects of masculine identity, including roles as fathers,

providers, and individuals within social groups. Participants expressed feelings of loss of independence, control, and perceived inadequacy, leading to experiences of shame and embarrassment, particularly when comparing themselves to societal norms of masculinity. Additionally, the invisible nature of brain injury may exacerbate feelings of shame and reluctance to seek support, further complicating the process of identity reconstruction post-injury. Despite these challenges, MacQueen et al. (2020) also indicate that participants found ways to adapt activities and express their masculine identities, suggesting a potential for posttraumatic growth and resilience. Valera et al. (2022) emphasize the need for rehabilitation programs to consider the impact of ABI on masculine identity and actively facilitate positive identity development among male survivors. Ultimately, the experiences of males with self-concept post-ABI emphasize the importance of addressing gender-specific challenges and promoting adaptive coping strategies within rehabilitation interventions.

Age and time since injury are also critical biological considerations in understanding the impact of ABI on self-concept. Mamman et al. (2023) found that ABI severity was associated with higher QOL, suggesting that individuals with more severe injuries may have heightened self-awareness regarding deficits and changes in function over time. Moreover, age-related factors play a role in the rehabilitation journey, with older individuals experiencing more extended recovery periods and facing challenges in returning to pre-injury roles and activities. The duration since injury may also influence self-concept as survivors navigate the long-term consequences and adaptations associated with ABI. However, controversy persists in the literature regarding the conceptualization of personality change, reflecting differing perspectives on the nature of the “self” post-injury. This underscores the need for a comprehensive understanding of the biological, psychological, and social factors contributing to changes in self-concept and identity following ABI (Segal, 2010; Mamman et al., 2023). Addressing these

biological factors in rehabilitation and support programs can facilitate the positive reconstruction of self-concept and improve self-concept and well-being while navigating the challenges of life after ABI.

Psychological Factors. Psychological factors are significant in shaping self-concept following ABI. ABI survivors often report higher levels of depressive and anxiety symptoms compared to control groups, with these symptoms predominantly within the mild-to-moderate range (Ponsford et al., 2014). Importantly, self-concept can exhibit significant negative associations with the presence of anxiety and depression symptoms, underscoring the interplay between psychological well-being and self-concept post-injury. Despite physical and task-oriented improvements, individuals often report a negative sense of self, low social activity, and psychological morbidity post-stroke, underscoring the profound impact of psychological well-being on self-perception (Ellis-Hill & Horn, 2000). Mamman et al. (2023) further highlight various psychological factors influencing QOL and self-concept. Depression emerges as a prevalent mental health disorder post-ABI, significantly associated with lower QOL and poor health outcomes. The increased risk of depression post-ABI emphasizes the critical need for long-term support systems and screenings to address psychological well-being and self-concept among ABI survivors. Additionally, adaptive coping strategies, such as active problem-solving, positively correlate with emotional adjustment and QOL post-injury. This suggests that interventions targeting psychological factors facilitate emotional adjustment and enhance self-concept among ABI survivors. These findings emphasize the importance of addressing psychological factors as an essential aspect of rehabilitation and support for individuals navigating post-ABI challenges.

Furthermore, cognitive impairment, including deficits in attention, memory, and executive functioning, further compounds the challenges ABI survivors face, impacting various

domains of self-concept (Goldman et al., 2022; Mamman et al., 2023). These deficits hinder individuals' ability to perform daily activities, engage in social interactions, and adapt to post-injury life, thereby diminishing their perceived self-concept. Goldman et al. (2022) further highlight a range of challenges that individuals with ABI may encounter, such as slowed information-processing skills, impaired judgment, and difficulties in verbal communication. They may also enhance levels of impulsivity, and behavioral issues may arise, leading to conflicts in relationships and negative self-concept. These challenges may cause long-term consequences and contribute to feelings of frustration, isolation, and decreased self-concept. Understanding the complications of cognitive impairments can aid in developing tailored interventions and support strategies for cognitive rehabilitation. Thus, addressing these impairments is crucial in rehabilitation efforts aimed at improving self-concept and overall well-being for ABI survivors.

Mamman et al. (2023) affirm holistic and multidisciplinary approaches to rehabilitation for individuals with ABI. As counselors, understanding the prevalence and impact of psychological factors among ABI survivors is crucial for providing practical support and intervention (Ponsford et al., 2014). By addressing these challenges, counselors can help ABI survivors navigate recovery's psychological and emotional challenges and facilitate adaptive coping strategies (Mamman et al., 2023). Recognizing the impact of ABI on self-concept, counselors can provide emphatic and person-centered support through therapeutic interventions focused on rebuilding self-concept, fostering identity reconstruction, and promoting a sense of autonomy and empowerment (Ellis-Hill & Horn, 2000; Ponsford et al., 2014).

Social Factors. Social factors are significant in shaping self-concept after ABI, as they can influence individuals' QOL, social connectedness, and sense of identity (Mamman et al., 2023). Mamman et al. (2023) identify various social factors influencing QOL post-ABI,

including employment, income, social support, and community integration. Employment status emerges as a significant determinant of QOL, with employed individuals often reporting higher levels of well-being. However, the transition back to work post-injury can be challenging, with cognitive and physical difficulties hindering vocational outcomes for many ABI survivors.

Moreover, higher income is associated with greater QOL, though individuals may face increased expenses post-ABI, such as medical costs, exacerbating financial strain (Mamman et al., 2023).

Additionally, numerous individuals with ABI experience either a complete inability to work or significant limitations in their ability to do so. This circumstance further influences their self-concept not only within themselves but also within their family and community contexts.

Community integration and social participation are essential for individuals with ABI as they facilitate engagement in meaningful activities and connections, thereby enhancing QOL (Mamman et al., 2023). However, the transition from hospital to home can be complex, involving reintegration into pre-injury settings among cognitive and physical limitations, highlighting the need for tailored support during this phase. Martin et al. (2015) further emphasizes the significance of social relationships in shaping self-concept post-ABI. Participants in the study expressed a desire to contribute to relationships and engage in meaningful occupations, underscoring the significance of social connectedness in shaping post-ABI identity. They also emphasized a desire for relational connectedness through family, friendships, and citizenship, highlighting the crucial role of social support and meaningful engagement in fostering a positive self-concept.

Moreover, ABI often precipitates changes in roles and relationships within familial, occupational, and social spheres, profoundly impacting individuals' self-concept and social identity. MacQueen et al. (2020) elucidated how ABI survivors grapple with shifts in their social roles and responsibilities, leading to reevaluating their sense of self. Participants desired to

maintain their pre-injury roles and activities, underscoring the importance of continuity and belonging in fostering a positive self-image. MacQueen et al. (2020) shed light on the impact of ABI on social identity, highlighting how changes in roles and relationships within family, work, and social groups can affect individuals' sense of self. Participants emphasized the importance of maintaining age-related gender activities and social groups, which acted as protective factors for social identity post-injury. However, some participants expressed concerns about the invisibility of their injury, particularly regarding masculine identity, leading to a reluctance to share emotions or seek support.

A comprehensive understanding of the social factors influencing self-concept post-ABI is vital for counselors working with individuals navigating the challenges of brain injury recovery. Research shows that social factors are multifaceted in ABI rehabilitation, influencing individuals' sense of self-concept, social integration, and overall well-being. By addressing these challenges, facilitating social integration, and promoting adaptive coping strategies, counselors can aid in empowering ABI survivors to navigate the complexities of rehabilitation and fostering a sense of belonging. Additionally, integrating social identity considerations into rehabilitation services and developing tailored interventions aimed at promoting social relationships post-ABI are crucial steps toward enhancing self-concept and QOL for individuals recovering from brain injury. Integrating social factors into ABI rehabilitation promotes resilience and adaptation and may foster meaningful recovery and reintegration into society.

Impact of Evidence-Based Therapies on Self-Concept

ABI presents complex challenges that impact various aspects of an individuals' life, including neurobiological, intrapsychic, and interpersonal dimensions. Understanding interventions impacts for each of these dimensions can provide valuable insight into advancing therapeutic knowledge and rehabilitation strategies. This overview examines the neurobiological

adaptations resulting from certain therapeutic interventions, how they address intrapsychic challenges, and the influence on interpersonal dynamics.

Neurobiological Level. Interventions that are shown to improve self-concept of individuals with ABI can produce significant neurobiological changes. D’Cruz et al. (2019) portrays a structured approach in how individuals with ABI reflect and understand their experiences, which supports memory organization and retrieval as adapting to new cognitive strategies. Additionally, using metaphors in narratives connects individuals with emotional and cognitive processing to enhance memory retrieval efficiency. Furthermore, McCoy et al. (2020) explore ACT and find that in younger adults, it may enhance cognitive functions by promoting neural changes that support emotional regulation, executing functioning, and cognitive flexibility. On the contrary, they also find that older adults potentially have a reduced neural adaptation to ABI, which can limit the neurobiological benefits of ACT. As for the severity of the injury, mild brain injury was found to allow for better preservation of cognition over moderate to severe brain injury as there is less extensive neurological damage. Mamman et al. (2023) highlight that biological factors like sex and cognitive impairment affect neurobiological outcomes, with females often reporting lower quality of life and more cognitive challenges, highlighting the need for gender-sensitive interventions. Moreover, because cognitive impairments such as attention, memory, and executive functioning can impact daily life, targeting cognitive rehabilitation may enhance neurobiological recovery as well. In conclusion, therapeutic interventions can lead to substantial neurobiological changes, and these insights provide further importance to tailoring therapeutic approaches to individual needs.

Intrapsychic Level. Addressing the impact of effective therapeutic interventions on the intrapsychic level for individuals with ABI is essential for researchers to understand this notion. McCoy et al. (2020) highlight how ACT promotes emotional acceptance and cognitive

flexibility, influencing the intrapsychic level. ACT encourages individuals to accept their present conditions and internal experiences, thereby managing anxiety more effectively and enhancing emotional regulation. As well, it can work towards reducing internal conflict associated with distressing thoughts and feelings to find purpose and motivation through rehabilitation. This is important for psychological recovery as Murray et al. (2022) underscore the significant impact in individuals with ABI sense of self-concept and self-efficacy. ABI survivors struggle with the loss of choice and control and must address internal conflicts related to their altered abilities and sense of self, redefine personal goals and priorities, and make decisions about their identity and their future.

Furthermore, Kelly et al. (2013) provides another avenue for intrapsychic support, which involves family members to offer support and emotional reinforcement about injury-related changes. However, this may not fully address deep intrapsychic challenges including anxiety or depression; thus, more intensive or tailored interventions are needed. Conversely, support groups are significant at the intrapsychic level as their role is crucial for identity reconstruction for individuals with ABI. D’Cruz et al. (2019) emphasize that support groups provide a platform for individuals to share their personal experiences and narratives to develop a strengths-based identity. By expressing and processing complex emotions, such as grief or frustration, in these settings can enhance emotional expression and community, which can contribute to more positive self-concept and improved psychological adjustment. Additionally, Gelech et al. (2019) portray identity work within support groups and how they help individuals shift the focus from impairment to capability, managing emotional impact of injuries, and reinforcing feelings of normalcy and growth. Gender-specific groups in particular can provide a unique space to affirm gendered identities and allow participants to reconnect with roles that might be overshadowed in mix-gendered settings.

In summary, ACT aids in emotional acceptance and cognitive flexibility, helping individuals manage internal conflicts, aid in anxiety management, and help individuals regain a sense of choice and empowerment (McCoy et al., 2020; Murray et al., 2022). While family support provides emotional reinforcement, it may not fully address deeper intrapsychic issues such as anxiety and depression (Kelly et al., 2013). Support groups offer a space for sharing experiences, developing strengths-based identity, and processing complex emotions (D'Cruz et al., 2019). They help shift the focus from impairment to capability, reinforcing feelings of normalcy and growth (Gelech et al., 2019). Gender-specific interventions further enhance this process by affirming gendered identities and reconnecting participants with meaningful roles. Together, these interventions can contribute to a positive intrapsychic adjustment, which aids in reconstructing self-concept and enhancing well-being after ABI.

Interpersonal Level. On an interpersonal level, numerous interventions address aspects of these changes and how they impact individuals with ABI. McCoy et al. (2020) highlights that ACT can improve emotional regulation and cognitive flexibility, thereby influencing interpersonal relationships for individuals. By enhancing these skills, individuals are better equipped to engage in social interactions, leading to effective communication, stronger relationships, and a decrease in avoidance behaviors. This is relevant as Lennon et al. (2014) explores how social interactions can shape individuals' self-narratives as their participants engage in social comparisons. Positive external influences contribute to reconstructing self-narratives, while negative narratives often arise from feelings of being a burden and loss of autonomy. This process exemplifies the importance of how social dynamics aid in maintaining a positive self-concept and emotional impacts.

To involve family members in interventions, Kelly et al. (2013) found that this can enhance communication and problem-solving skills within the family, reducing feelings of

isolation. Similarly, D’Cruz et al. (2019) discuss fostering social connections and reducing isolation for individuals with ABI by sharing experiences through storytelling, as it enhances empathy and trust, supports community reintegration, and allows individuals to rebuild connections and gain a sense of belonging. These environments, as noted by Gelech et al. (2019) in relation to peer support in interventions, also provide validation and affirmation from others with similar experiences can help in creating a safe and supportive space for ABI survivors and contribute to a positive self-concept. This also pertains to those peers who understand both gender-specific and injury-related aspects of an individual’s experiences. Comparably, Murray et al. (2022) emphasize that collaborative goal setting and shared decision-making is crucial for empowering individuals to regain control over their lives as they shift from being a passive patient to an active participant in care. These studies collectively highlight interventions targeting interpersonal levels and how they significantly impact individuals’ social interactions, support networks, and self-perceptions. They foster more supportive and effective interpersonal relationships, which could contribute to enhancing self-concept and well-being.

As gleaned from above, evidence-based therapies significantly influence self-concept in individuals with ABI across neurobiological, intrapsychic, and interpersonal dimensions. On the neurobiological level, interventions can foster cognitive and emotional regulation, particularly in younger adults, though challenges persist for older individuals and those with more severe injuries (D’Cruz et al., 2019; McCoy et al., 2020). On the intrapsychic level, therapies that promote emotional acceptance and flexibility, alongside supportive environments such as family involvement and peer support groups, help individuals manage internal conflicts and rebuild their self-concept (Kelly et al., 2013; D’Cruz et al., 2019; Gelech et al., 2019; McCoy et al., 2020; Murray et al., 2022). Interpersonal interventions further enhance social connections, improve communication, and reinforce positive self-perceptions (Kelly et al., 2013; Lennon et

al., 2014; D’Cruz et al., 2019; Gelech et al., 2019; McCoy et al., 2020; Murray et al., 2022).

Collectively, these interventions provide a comprehensive approach to addressing the complex challenges of ABI, aiding individuals in reconstructing their self-concept and enhancing their well-being.

Ethical Considerations

Adherence to the ethical code is crucial for psychologists to inspire ethical behavior (Nezu, 2020). The ethical standards from *the Canadian Code of Ethics for Psychologists* (Canadian Psychological Association [CPA], 2017) and the *Standards of Practice* (College of Alberta of Psychologists [CAP], 2022) are utilized regarding self-concept for individuals with ABI. Additionally, the principles within the Tri-Council Policy Statement: *Ethical Conduct of Research Involving Humans* (Canadian Institutes of Health Research et al., 2022) is followed to warrant ethical behavior. Given the vulnerable nature of this population, ethical research practices are essential in exploring self-concept and identity reconstruction. Creswell and Creswell (2018) emphasize that researchers need to consider the unique requirements of vulnerable populations. This section will outline fundamental ethical principles, including informed consent, debriefing, protection of participants, deception, confidentiality, and withdrawal, to highlight the responsible conduct in the research of the ten core articles. Furthermore, it is imperative to address ethical considerations beyond research to clinical practice, and ensure interventions are tailored to individuals’ needs. Ethical practice involves ongoing evaluation of the effectiveness of interventions and their impact on self-concept and well-being.

Informed Consent

The most fundamental principle is Principle I: Respect For the Dignity of Persons and People (CPA, 2017) and outlines the ethical responsibilities to obtain informed consent and the

need for clear, comprehensive information about the purpose, procedures, risks, and benefits of research, as well as ensuring researchers respect participants' autonomy and dignity. This principle aligns with the Respect for Persons standard in the Tri-Council Policy Statement (Canadian Institutes of Health Research et al., 2022), emphasizing autonomy and the necessity for informed consent to be free, informed, and ongoing, as well as with the Informed Consent for Services guidelines (CAP, 2022) that requires participants to be fully informed about any assessment, intervention, or study. Among the ten core articles analyzed, four detailed informed consent procedures, while the remaining six were literature reviews where informed consent was deemed not applicable.

Several patterns emerge in examining the ethical considerations of informed consent across the ten studies. Desdentado et al. (2021), Beadle et al. (2020), MacQueen et al. (2020), and Keegan et al. (2022) all demonstrate rigorous procedures for obtaining written informed consent from participants. These studies ensured that participants were fully briefed about the study before providing consent and received ethical approval from relevant committees. While Desdentado et al. (2021) and Beadle et al. (2020) conducted their studies in controlled environments (quiet rooms and participants' homes), MacQueen et al. (2020) and Keegan et al. (2022) involved initial contact and information provision by clinicians or caregivers before researchers obtained consent.

In contrast, Mamman et al. (2023), D'Cruz et al. (2019), Villa et al. (2021), and McCoy et al. (2020) performed literature reviews, thus not engaging directly with participants. Consequently, informed consent was not applicable, and these studies reported that no ethical approval was required or obtained for their methodologies. More specifically, Mamman et al. (2023) state the lack of need for informed consent and ethical approval, while D'Cruz et al. (2019) highlight gaps in the ethics reporting of the reviewed studies, emphasizing the need for

better documentation. Moreover, Villa et al. (2021) and McCoy et al. (2020) focused on the ethical conduct of the literature search and selection process, ensuring thorough and transparent methodologies. Finally, Murray et al. (2022) and Gelech et al. (2019) highlight gaps or implicit assumptions regarding informed consent in the reviewed papers. Murray et al. (2022) noted that some papers presumed consent based on ethical approval, while Gelech et al. (2019) implied consent through participant engagement without detailed documentation. These studies illustrate a range of informed consent practices, from explicit and detailed procedures to implicit assumptions based on ethical approvals. Ensuring informed consent remains a cornerstone of ethical research is essential for protecting participant rights and maintaining research integrity.

Debrief

Debriefing helps maintain transparency and trust between researchers and participants. It is a crucial component of ensuring the autonomy and dignity of research participants and allowing them to understand a research study's purpose and procedures (Canadian Institutes of Health Research et al., 2022). Principle II: Responsible Caring CPA (2017) underscores the ethical obligation to ensure participants are not left with any misconceptions or emotional distress caused by the research, thus highlighting how debriefing is seen as essential to the ethical treatment of participants. Similarly, CAP (2022) portrays the importance of researchers being sensitive to participants' needs, reactions, and concerns during debriefing and tailoring to participants' level of understanding to ensure they are supported, and their autonomy is respected. Although it is noted that debriefing is an essential factor for research, the ten core articles did not indicate or endure debriefing with the participants or research process.

Protection of Participants

Protecting research participants is an ethical obligation that the Tri-Council Policy Statement (Canadian Institutes of Health Research et al., 2022) emphasizes as the dual moral

obligation to respect autonomy and to protect those with developing, impaired, or diminished autonomy. Respecting autonomy involves acknowledging participants' capacity to make informed choices and ensuring these choices are made freely. Certain factors may hinder a person's ability to exercise autonomy, which should be addressed before conducting research. Additional measures should be taken for those unable to exercise autonomy, including individuals with ABI. Similarly, Principle II in Canadian Code of Ethics for Psychologists (CPA, 2017) and the Standards of Practice (CAP, 2022) stress the need to be sensitive to the needs of those with impaired capacity, adapting research practices to accommodate participants, and ensuring their welfare and rights are upheld throughout the research process.

Gelech et al. (2019) highlight the protective role of therapeutic group interactions in enhancing self-concept and resilience. While these interactions help mitigate identity threats and improve self-concept, the stability of these benefits outside the program context remains uncertain, suggesting a need for ongoing interventions. This aligns with the findings of Desdentado et al. (2021), who underscore self-compassion as a crucial protective factor for individuals with ABI. Self-compassion, involving non-judgemental acceptance and kindness towards oneself, can alleviate emotional suffering and reduce anxiety and depression. MacQueen et al. (2020) add another dimension by exploring the invisible nature of brain injuries and their impact on masculine identity. They find that maintaining an outward appearance of normality can protect individuals from stigma while engaging in pre-injury activities and maintaining social connections helps preserve social identity. This continuity of social roles and activities supports overall well-being and aligns with the protective benefits discussed by Gelech et al. (2019) and Desdentado et al. (2021). Although challenging, the invisibility of the injury can also serve as a protective factor by allowing individuals to retain aspects of their pre-injury identity. Moreover, Murray et al. (2022) emphasizes the importance of collaborative goal-setting and

shared decision-making in protecting participants' autonomy and empowerment. Involving participants in decisions about their rehabilitation ensures they feel in control and supported and complemented the protective factors identified by other studies.

Deception

Deception, where the whole purpose or nature of a research study is not disclosed to participants upfront to prevent bias or influence on their behavior, can be a valuable tool in obtaining valid results. However, it may pose ethical challenges concerning Respect for Persons (Canadians Institute of Health Research et al., 2022). The Standards of Practice (CAP, 2022) explicitly state that deception should not be utilized in the profession. When deception is necessary, it should be minimized, justified, and followed by a comprehensive debriefing, as outlined in Principle III: Integrity in Relationships (CPA, 2017). Researchers should ensure that deception does not harm participants and that their dignity and autonomy are respected throughout the research process, especially for individuals with ABI. ABI participants may have impaired cognitive functions, making it challenging for them to fully understand and consent to participation, especially when deception is involved. None of the ten core articles used deception, aligning with the Standards of Practice (CAP, 2022).

Confidentiality

Researchers must take all necessary steps to protect participants' privacy and keep their data confidential, as per Principle I (CPA, 2017). They must protect the confidentiality of the data they collect, ensuring that personal identifiers are removed, and data is stored securely (Canadian Institute of Health Research et al., 2022). Of the ten core articles, MacQueen et al. (2020) was the only one to report using pseudonyms to protect the identity of participants. This is particularly important in research involving vulnerable populations, including individuals with ABI, who may be more susceptible to breaches of privacy and the potential harm that could

result. Additional considerations may be necessary for participants with ABI to ensure they understand the confidentiality measures in place and feel secure in sharing their information (CAP, 2022). In the study by Desdentado et al. (2021), participants were briefly informed about the study and provided written consent to participation. They were examined in a quiet room, free of distractions, which helped create a secure environment conducive to understanding and comfortable disclosure.

Withdrawal

The withdrawal right is integral to protecting participants' welfare and ensuring they can make decisions in their best interest. Researchers should emphasize the importance of allowing participants to withdraw from a study at any point without penalty (Canadian Institute of Health Research et al., 2022; CPA, 2017). Additional considerations are necessary for ABI participants to understand the withdrawal process and feel secure in exercising this right. Therefore, researchers should provide clear, accessible information about the withdrawal process and ensure participants can exercise this right freely. The Standards of Practice (CAP, 2022) reinforce the need for ongoing consent and the right to withdraw, highlighting that participants must be informed about their right to withdraw from the research at any time. None of the ten core articles report the factor of withdrawal in their research process. It is important to note that it would be beneficial for researchers to explain withdrawal throughout the process, ensuring participants are not compelled to continue in a study against their will.

Summary

Ethical considerations in research are crucial to ensuring the respect and welfare of participants, especially for the vulnerable nature of individuals with ABI. This extends to the assessment and intervention phases, where specific ethical issues such as informed consent, respecting client autonomy, and tailoring interventions to individual needs while maintaining

confidentiality, must be addressed. For instance, individuals with ABI may have challenges with understanding and retaining information, which can complicate the informed consent process. This pertains significantly to the cases of severe impairments for individuals as their autonomy and ability to consent is compromised. As well, if the individual with ABI has cognitive impairments, this may limit their ability to assess and understand the risks and benefit factors. If the individual is unable to provide consent, legal guardians or family members may need to be involved, which poses challenges in the client's rights to confidentiality. For individuals with disadvantaged backgrounds or limited resources, their access to assessments or interventions may pose difficulties. Thus, being aware of and addressing the potential disparities is essential.

Furthermore, individuals often experience the long-term nature of care after their injury, so it is important to maintain appropriate professional boundaries and navigate the risk of becoming too personally involved. This may occur as the individuals with ABI may become overly dependent on professionals in the rehabilitation setting; thus, managing possible dependency is crucial. Individuals with ABI may also come from diverse cultural backgrounds that influence their understanding of their injury, recovery, and decision-making. The availability and quality of support can vary among individuals with ABI; therefore, being culturally competent and respectful of differing perspectives and avoiding biases or judgment is significant in their recovery process. Although these are significant ethical considerations, it is essential to note that the ten core articles did not explicitly include all of them. This omission highlights the need for researchers to remain vigilant and comprehensive in applying ethical principles to ensure the protection and respect of all research participants.

Chapter Four: Application to Clinical Practice

In exploring the impact of acquired brain injury (ABI) on self-concept and evaluating therapeutic interventions that effectively address these changes, crucial insights for their application in clinical practice arise. This chapter will focus on several key areas, including clinical applications, preventative measures, scientific knowledge, well-being of society, and cultural and diversity implications. The research questions to be answered are: How does acquired brain injury (ABI) influence the self-concept of adult individuals? And, what are the most effective therapeutic interventions for improving the self-concept of adult individuals with ABI? These concepts will be explored to enhance the understanding of how the findings from this study can be effectively applied in clinical practice and inform the conclusions and recommendations in Chapter 5.

Clinical/Therapeutic Applications

Addressing self-concept in individuals with acquired brain injury (ABI) requires a multifaceted approach that balances reconstructing self-concept and the recovery of deficits for the individual. Beyond restoring physical and cognitive deficits, rehabilitation should support the reconstruction of self-concept, as ABI can disrupt a person's sense of self, leading to decreases in quality of life, emotional distress, social isolation, and more. Gelech et al. (2019) emphasize the importance of rehabilitation programs that are more than just simply restoring lost capacities, advocating instead of interventions that provide opportunities for positive identity reflection and development. The importance of considering identity in rehabilitation is further supported by MacQueen et al. (2020), who highlight the need to assess how changes in social relationships, roles, and values impact identity post-ABI. Recognizing and addressing shifts in these areas is important for helping clients regain a sense of purpose and belonging. For instance, integrating activities that are meaningful to the individual can promote a positive sense of self-concept and

help clients reconnect with themselves and others. MacQueen et al. (2020) also highlight the significance of addressing feelings of shame that may arise from deviations from traditional masculine ideals as these can further diminish self-concept. Tailoring interventions to incorporate these considerations can enhance engagement and foster a more positive sense of self.

Mamman et al. (2023) expand on this by highlighting the strong association between mental health and quality of life after ABI. They suggest that rehabilitation programs should focus on cognitive and physical recovery, as well as provide psychological support through ongoing mental health screenings and interventions. Additionally, they recommend incorporating financial counseling and social participation opportunities, as these can alleviate stress and support the development of a new, positive self-concept. Furthermore, Villa et al. (2021) emphasizes the need for social interventions that strengthen social connections and community integration. Providing education about ABI and offering feedback in ways that avoid reinforcing a negative self-concept can reduce stigma and support a more positive social environment for individuals with ABI. This is particularly important, as societal attitudes and stigma can further isolate individuals and hinder their self-concept reconstruction.

In further supporting self-concept work, the therapeutic relationship can play a significant role. D'Cruz et al. (2019) stressed the importance of empathic and non-judgmental listening in therapeutic settings, as this can create a safe space for clients to explore and rebuild their self-concept. Furthermore, Murray et al. (2022) advocated for engaging clients in setting their own goals and making decisions about their recovery. This empowers individuals, reinforcing their agency and helping them regain control over their lives. Moreover, considering these clinical and therapeutic applications is crucial for individuals with ABI in their rehabilitation as clinicians can help individuals with ABI rebuild their self-concept and overall well-being.

Exploring Preventative Measures

Preventative measures are emphasized significantly within research to exemplify the importance of self-concept work and therapeutic interventions. Gelech et al. (2019) highlighted that early interventions focused on developing a strong sense of self could build resilience against the identity challenges that arise post-ABI. By fostering positive identity formation through community-based programs and social support, individuals may be better equipped to cope with the complexities and disruption of self-concept from ABI. Similarly, MacQueen et al. (2020) emphasize that shame and self-stigma can prevent men from seeking help after their injury; thus, early interventions, specifically aimed at reducing stigma and enhancing self-seeking behaviors, can be effective. Regarding social stigma, Villa et al. (2021) discussed that by addressing these concerns and supporting individuals in managing their own stigma can prevent social withdrawal and disruption in self-concept. Additionally, Gelech et al. (2019) highlighted that group settings could be helpful in allowing individuals to feel connected and affirmed to reduce isolation and a loss of identity, and the notion of gender-sensitive programs to address the unique identity-related challenges faced by individuals with ABI. This is similar to McCoy et al.'s (2020) argument for community-based programs that integrate ACT based approaches, providing individuals with psychological tools and a strong support network to endure changes in self-concept after ABI.

Through education and early therapeutic intervention, Desdentado et al. (2021) argued that educating individuals and their families about the emotional challenges post-ABI can empower them to recognize early signs of distress, leading to quicker intervention as a preventative measure. They also highlight that regular mental health check-ins and training that focuses on self-compassion and self-esteem may reduce vulnerabilities to anxiety and depression. A more specific therapeutic intervention includes ACT as McCoy et al. (2020) added

that providing education to this population and healthcare providers about ACT can serve as a preventive measure by helping individuals build coping strategies and psychological flexibility throughout rehabilitation. Furthermore, Beadle et al. (2020) suggested training individuals in coping mechanisms and problem-solving skills to assist them in managing everyday stressors more effectively as another key preventative measure in protecting against negative impacts of ABI on self-concept. With this, Villa et al. (2021) argued that involving individuals in decisions about their care promotes autonomy and helps preserve their sense of self. Murray et al. (2019) further emphasized ensuring that individuals maintain control over their rehabilitation journey can prevent setbacks that could undermine their self-concept. Together, these studies highlight the importance of preventative measures that address various concerns that accompany ABI and provide approaches to mitigate the disruption of self-concept and ABI.

Scientific Knowledge

The scientific knowledge on self-concept for individuals with ABI has expanded notably in recent years. Recent studies emphasize the complex interaction of psychological, social, and biological factors that influence self-concept post-ABI. McCoy et al. (2020) explored how ABI disrupts identity, particularly in relation to an individual's cognitive and emotional capacities, impacting their self-perception. Research further demonstrates that ABI can lead to challenges such as loss of autonomy, identity confusion, and emotional distress (Gelech et al., 2019; Villa et al., 2021). This disruption extends to social roles and relationships, which further complicate the process of self-concept reconstruction. The rehabilitation journey involves physical recovery and significant adjustments in self-awareness in pursuing meaningful engagement (Murray et al., 2022). Along with this, Beadle et al. (2020) highlighted the need for multifaceted therapeutic approaches. This process often requires individuals to navigate a new sense of self that accommodates both positive and negative changes resulting from their injury (Lennon et al.,

2014). While some may find that their injury leads to a reevaluation of life priorities and acquisition of new skills, others engage with negative self-evaluations and a sense of alienation from their pre-injury identity (Ponsford et al., 2014; Gelech et al., 2019).

For interventions, Sander et al. (2021) examined the efficacy of ACT, and their findings suggest that ACT is particularly effective in reducing psychological distress by encouraging individuals to align their actions with personal values, despite ongoing challenges. Murray et al. (2022) expanded on this by emphasizing the importance of choice and empowerment in rehabilitation, advocating for interventions that give individuals a sense of control and agency in their recovery process, which positively influences self-concept. Furthermore, Gelech et al. (2019) contributed to the understanding of gender-specific challenges, emphasizing the importance of considering individual differences in self-concept reconstruction. Overall, a comprehensive understanding of ABI's impact on self-concept and the integration of evidence-based therapeutic interventions are essential for supporting individuals in their rehabilitation and identity reconstruction journey.

While the existing research provides a solid foundation for understanding the impact of ABI on self-concept, there remains a need for further scientific studies to deepen this knowledge. One area that would strengthen understanding is exploring the progression of self-concept in individuals with ABI. Although current studies provide valuable insights into the initial stages of identity disruption and recovery, perhaps further studies on how self-concept changes over time and through different phases of rehabilitation are significant. Additionally, more research is needed to examine the diverse experiences of ABI survivors across different demographics, including gender, age, and cultural backgrounds. While Gelech et al. (2019) and MacQueen et al. (2020) offered gender-specific issues, other factors such as ethnicity and socioeconomic status are still underrepresented in the literature. A more inclusive body of research could ensure that

therapeutic interventions are tailored to a wider range of experiences, making them more effective for diverse populations. Moreover, exploring the effectiveness of various therapeutic interventions across different groups could help refine practices and ensure these treatments are accessible and beneficial to all individuals with ABI. By addressing these gaps, future studies could advance the field and provide clinicians with the tools needed to offer more personalized, effective, and sustainable interventions for ABI survivors.

Well-Being of Society

The well-being of society is closely linked to the support and integration of individuals with ABI. Across studies, a common theme is that addressing the social, emotional, and mental health needs of individuals with ABI benefits them and the broader community. D’Cruz et al. (2019) and Villa et al. (2021) highlighted the importance of reducing isolation and stigma by fostering social connections and understanding. These efforts enhance societal well-being by creating more inclusive and empathetic communities. Similarly, Mamman et al. (2023) emphasized the need for strong mental health and social support systems for individuals with ABI, along with their families and caregivers, which can help society promote more effective rehabilitation and enhance societal well-being.

Beadle et al. (2020) highlighted that effective rehabilitation programs that address psychological challenges can improve independence and social productivity, which benefits both individuals and society by promoting better mental health outcomes. Further, Murray et al. (2022) synthesized this by arguing that the well-being of society is closely tied to how effectively individuals with ABI are supported. Their research suggests that by promoting recovery and providing effective support systems, society fosters a more inclusive and empowered community. Together, these studies highlight that by addressing topics such as stigma, promoting social support, and providing comprehensive services for rehabilitation,

society can foster an environment that benefits the support of individuals with ABI and the broader community.

Cultural/Diversity Implications

Addressing self-concept in individuals with ABI requires a strong understanding of cultural and diversity factors that may shape identity and social roles. Multiple studies highlight the importance of these factors in shaping rehabilitation outcomes and suggest that effective therapeutic interventions must be culturally sensitive and inclusive to fully address the unique needs of individuals with ABI diverse backgrounds. Research highlights how individuals reconstruct their identity post-injury can vary significantly on cultural norms around independence, family roles, and societal expectations (Gelech et al., 2019). For instance, in collectivist cultures, self-concept may be tied to fulfilling responsibilities to others, while individualistic cultures often emphasize autonomy. These cultural differences can influence how people perceive their worth and cope with ABI.

MacQueen et al. (2020) and Villa et al. (2021) showed that gender, ethnicity, and socioeconomic status are complex ways that may shape post-ABI self-concept. For instance, gender roles may dictate the kinds of societal roles deemed valuable. Men and women may experience differing challenges, with men may feel pressured to regain independence, while women might struggle with losing caregiving roles. Additionally, ethnic minorities may face healthcare systems that reflect dominant cultural norms, creating barriers to rehabilitation. (Villa et al., 2021). Lower socioeconomic status can exacerbate these challenges, limiting access to care and services (Beadle et al., 2020), which can hinder their ability to re-establish a positive self-concept. Such disparities highlight the need for culturally sensitive and equitable interventions that actively work to overcome these barriers and promote inclusivity and cultural competence among clinicians.

Stigma surrounding disability also significantly impacts self-concept. Murray et al. (2019) highlighted that individuals may internalize negative societal views, leading to feelings of shame, isolation, or worthlessness, especially in cultures where disability is seen as a burden. Thus, therapeutic interventions should challenge and reframe societal attitudes toward disability, as well as aiding in identity reconstruction. Furthermore, family dynamics also are crucial in this process, particularly in cultures that value familial interdependence (McCoy et al., 2020). Culturally competent interventions must integrate these values to support the individuals and their family, as family dynamics can greatly influence the individual's sense of self and recovery trajectory. Overall, effective therapeutic interventions should incorporate cultural competence by recognizing the diverse ways in which self-concept is constructed and maintained across the different cultural, gendered, and socioeconomic contexts, as well as the intersectionality of self-concept and identity, cultural attitudes toward disability, family dynamics, and access to resources. By acknowledging these factors and integrating them into therapeutic approaches, healthcare providers can offer more personalized and effective support to individuals navigating the complex process of rebuilding their self-concept after brain injury.

Chapter Five: Conclusions and Recommendations

As this study aimed to understand the impacts of acquired brain injury (ABI) on self-concept, it provides practical recommendations for therapeutic approaches that can help individuals rebuild their sense of self and move forward in their recovery. In this final chapter, the key findings are synthesized from the literature on self-concept and acquired brain injury (ABI), emphasizing the impact ABI has on individuals' self-concept, emotional well-being, and social integration. Throughout the preceding chapters, it is demonstrated that ABI affects survivors across multiple dimensions—biological, psychological, and social—creating complex challenges in recovery. While many individuals face a decline in self-concept following their injury, including diminished self-worth and increased isolation, this review also identifies the potential for growth and resilience in recovery.

In addressing the research questions, this study has explored how ABI influences the self-concept for adult individuals by examining the disruptions ABI causes. The findings portray that ABI can significantly impact self-concept, often leading to feelings such as diminished self-worth, identity confusion, and social isolation (Beadle et al., 2020; MacQueen et al., 2020). The study also highlighted the role of emotional and cognitive changes, such as increased anxiety and depression, in shaping how individuals perceive themselves after their injury (Murray et al., 2022). Furthermore, the review explored effective therapeutic interventions for improving the self-concept of individuals with ABI, identifying a range of approaches. Thus, the research questions have been addressed by not only identifying how ABI impacts self-concept and recognizes effective interventions for recovery. These findings underscore the need for evidence-based interventions that consider the unique needs of each individual with ABI, including their emotional, psychological, and social challenges, and the importance of therapeutic practices that promote autonomy and social support (Beadle et al., 2020; Murray et al., 2022).

In this chapter, a reflection on the practical implications of these findings will occur, along with summarizing the core recommendations for clinicians, and introducing future research questions that can further advance the understanding of self-concept in ABI recovery. By building on these insights, the goal is to inform therapeutic practices that aid in ABI rehabilitation, and support survivors in reclaiming a positive sense of self and improving their quality of life.

Conclusions

This conclusion synthesizes insights from the literature review and methodological analysis on the impact of ABI on self-concept. ABI can significantly diminish self-worth and emotional well-being, highlighting the need for comprehensive rehabilitation that addresses psychological and social challenges alongside physical recovery. However, many individuals also experience positive transformations, emerging with renewed strength and resilience. The methodological analysis underscores the importance of rigorous research designs to enhance our understanding of ABI's effects. While existing studies offer valuable insights, they often have limitations that call for further investigation with larger and more diverse participant groups.

From the Literature Review

This literature review highlights the significant impact ABI has on self-concept, demonstrating both negative and positive outcomes. The key findings reveal how ABI impacts individuals across biological, psychological, and social dimensions, while also offering insight into the importance of evidence-based therapeutic interventions in facilitating recovery and identity reconstruction.

Research shows that ABI often leads to a decline in self-concept, with individuals experiencing challenges, including a diminished self-worth, feelings of being a burden, and emotional distress. Studies such as those by Ponsford et al. (2014) and Lennon et al. (2014)

connected ABI to increased levels of depression and a reduced quality of life, exacerbated by the loss of autonomy and a sense of isolation. These negative emotional and psychological effects hinder recovery, contributing to stagnation in identity development and social reintegration. Despite these challenges, the literature also reveals the potential for positive shifts in self-concept following ABI. Survivors may experience personal growth, developing qualities such as empathy, emotional strength, and resilience, as noted in studies by Lennon et al. (2014) and Martin et al. (2015). These individuals often reassess their life priorities and form new social connections, demonstrating that ABI recovery can involve a redefined and strengthened sense of self.

The literature further highlights that effective rehabilitation goes beyond addressing physical impairments. The therapeutic interventions have an impact across a neurobiological, intrapsychic, and interpersonal level. At the neurobiological level: Therapeutic interventions, such as Acceptance and Commitment Therapy (ACT) show promise in enhancing cognitive functions such as emotional regulation and memory processing, especially in younger adults (McCoy et al., 2020). For older individuals or those with more severe injuries, the ability to adapt neurobiologically is reduced, highlighting the need for tailored therapeutic approaches. At the intrapsychic level: On a psychological level, therapies targeting emotional acceptance, cognitive flexibility, and self-regulation can help individuals manage internal conflicts and rebuild self-concept (Murray et al., 2022). Support groups and peer interventions allow individuals to process complex emotions and foster a strengths-based identity. However, more intensive interventions are necessary for those dealing with deeper challenges, such as anxiety and depression. Finally, at the interpersonal level: Interventions targeting interpersonal dynamics, including support groups, peer support, or family involvement, strengthen communication and social connection. These interactions foster empathy and trust, strengthen

emotional regulation, and promote social reintegration, which can be essential for improving self-concept after ABI.

From the Methodological Analysis

This methodological analysis of quantitative, qualitative, and review studies on ABI and self-concept highlights the critical role of rigorous research design in advancing the understanding of self-concept and identity, and emotional and psychological constructs in ABI populations. These studies portrayed certain strengths and limitations, leading to particular conclusions. Both Beadle et al. (2020) and Desdentado et al. (2021) focused on identifying causal relationships and utilized validated instruments to enhance the credibility of their findings, though had small sample sizes and the variability in data collection settings restricted the generalizability of their findings. Similarly, the qualitative studies by MacQueen et al. (2020), Keegan et al. (2022), and Gelech et al. (2019) offered in-depth insights into the lived experiences of ABI survivors; however, they also faced challenges related to small samples sizes, along with the subjective nature of self-reporting that may introduce bias and limit applicability of their findings. These highlight the importance of conducting further research with more diverse and larger samples to enhance the validity of insights.

The critique of the review studies (D’Cruz et al., 2019; McCoy et al., 2020; Villa et al., 2021; Murray et al., 2022; Mamman et al., 2023) revealed valuable insights into ABI experiences and interventions, though the reliance of qualitative methodological and the subjective interpretations of the researchers may limit the generalizability of the findings. Additionally, certain studies lack thorough quality appraisals, which may reduce the validity and reliability of the results. Synthesizing across these studies, it is clear that while valuable contributions have been made to the understanding of ABI, future research is needed to address identified limitations to further enhance rehabilitation strategies and improve self-concept of individuals

navigating life post-ABI.

Recommendations

This section focuses on the clinical and therapeutic recommendations derived from this literature review, highlighting the crucial role that self-concept plays in the recovery of individuals with ABI. Drawing from the reviewed studies, four key areas are identified that should guide therapeutic interventions aimed at enhancing self-concept in ABI survivors, followed by future research directions that address gaps in the current understanding of self-concept in ABI recovery.

Clinical/Therapeutic Level

There are four key recommendations highlighted for the importance in supporting self-concept individuals with ABI. These recommendations emphasize the need for a comprehensive approach to rehabilitation that addresses psychological, emotional, and social challenges faced by ABI survivors. By focusing on the complex nature of self-concept, clinicians can more effectively support individuals in their recovery journey.

Understanding Self-Concept

Throughout this capstone, it is shown that ABI can profoundly impact an individual's self-concept. Before designing effective interventions, it is crucial to understand how ABI alters self-concept, and prioritize understanding the complex nature of self-concept in ABI survivors. For instance, aspects such as cognition, emotion, and social connectedness may be disrupted by injury (Beadle et al., 2020). Cognitive impairments affect memory and problem-solving abilities, while emotional changes such as anxiety and depression can distort how individuals perceive themselves (MacQueen et al., 2020). ABI may disrupt social roles, leading to feelings of isolation and dependence, which can impact self-concept (Mamman et al., 2023). Thus, interventions should be tailored to the complex ways in which ABI influences each individual's

self-concept. Understanding the changes in self-concept can be the foundation for designing meaningful interventions that focus on psychological recovery, identity reconstruction, and emotional well-being.

Restoring Autonomy

Loss of autonomy is a significant emotional and psychological challenge for ABI survivors (Lennon et al., 2014; Ponsford et al., 2014). Many individuals feel helpless or like a burden due to the perceived inability to control their own lives. Restoring autonomy is crucial for enhancing self-concept and fostering a sense of personal control. Rehabilitation should aim to empower individuals by restoring their sense of autonomy. This could include involving survivors in their decision-making process regarding their care and recovery or collaborating with them to define their rehabilitation goals. By implementing ways to work with individuals with ABI to promote their autonomy, their personal values and preferences are respected, which strengthens their sense of autonomy throughout their rehabilitation progress. In addition, teaching these individuals to self-manage aspects of their rehabilitation can empower them to take control of their recovery journey, reducing reliance on external support and enhancing their self-concept and overall well-being.

Individualized Interventions

Every individual with ABI experiences unique challenges, making individualized interventions critical for rehabilitation. Tailoring rehabilitation programs to the individual's specific needs can be beneficial for optimal recovery, whether through ACT, choice and empowerment, support groups, or other approaches. For instance, ACT focuses on fostering emotional acceptance and cognitive flexibility, making it particularly suitable for individuals that struggle with anxiety and internal conflict (McCoy et al., 2020). Furthermore, interventions should account for demographic factors, such as age and gender. Gender-sensitive programs that

address unique societal pressures faced by men and women after ABI can improve emotional resilience and self-concept (Gelech et al., 2019). Age-specific interventions for older individuals may focus on managing prolonged recovery timelines, while younger individuals may benefit from therapies that emphasize reintegration into work and social roles.

Social Support

ABI often results in social isolation due to diminished communication abilities, cognitive impairments, and changes in roles within families and communities. Social support can be vital for emotional recovery and positive self-concept reconstruction. Facilitating strong social support systems, both within the family and through other supports. For family-focused interventions, they should include psychoeducation to help loved ones understand the survivor's emotional and cognitive challenges, reducing misunderstandings and the sense of being a burden. In addition, support groups can offer a platform for sharing experiences and normalizing the emotional challenges associated with the injury. Peer support programs enable survivors to connect with others facing similar struggles, providing emotional validation, and reducing feelings of isolation (Gelech et al., 2019). These opportunities for social interaction not only provide emotional validation, they also help individuals regain a sense of belonging, purpose, and connection with others.

In summary, the recovery of self-concept in individuals with ABI requires a multifaceted approach. Understanding how ABI impacts self-concept is foundational to designing effective interventions. Rehabilitation programs should be individualized to address the complex challenges faced by each survivor, and by promoting autonomy and fostering strong social support networks, individuals' rehabilitation can be aided to regain a positive self-concept. Through tailored interventions, clinicians can enhance the emotional and psychological recovery of ABI survivors, supporting them in rebuilding a fulfilling and meaningful life post-ABI.

Research Recommendations

This literature review consisted of a mix of quantitative studies, qualitative studies, and review studies. These studies collectively provide valuable insights into the impact of ABI on self-concept and psychological recovery, yet there are important considerations that could strengthen future research. While the findings offer useful evidence, addressing certain methodological limitations can improve the quality and applicability of the results. A few recommendations can be reported, which could contribute to stronger and generalizable findings in this field.

Sample Size

One recommendation could be to increase the sample size in future studies. Both Beadle et al. (2020) and Desdentado et al. (2021) have relatively small sample sizes, which limits the generalizability of their findings. A larger sample size could provide more robust data, enhance statistical power, and offer greater confidence in the generalizability of the results, especially when examining complex cases such as self-concept and psychological recovery in individuals with ABI. Additionally, increasing the sample size could aid in promoting more diverse demographic variables, which can ensure that the findings are applicable to a broader range of individuals and more accurately reflect the varied experiences of individuals with ABI.

Enhance Diversity

Another recommendation is to enhance diversity in sampling. The three qualitative studies by MacQueen et al. 2020, Keegan et al. 2022, and Gelech et al. 2019, focused on gender-specific groups (either men or women), limiting the diversity of perspectives and experiences. Future research could include a more balanced or varied sample in terms of gender, ethnicity, and severity of ABI, and a broader age range. This could provide a more comprehensive understanding of self-concept and identity reconstruction in individuals with ABI, allowing for

more generalizable findings.

Critical Appraisal

The studies within this literature review, although providing significant insight, did not all incorporate critical appraisal tools to enhance the validity of their findings. Future reviews should incorporate these types of assessments to strengthen the credibility of the review's conclusions, minimize potential bias, and enhance the reliability and generalizability of conclusions. Including structured appraisal methods can also identify gaps in existing research, guiding future studies toward more robust methodologies and comprehensive analyses.

Recommended Research Questions

Future research on self-concept and ABI recovery could benefit from addressing several key areas that remain underexplored. By focusing on these topics, clinicians can enhance their understanding of effective interventions and improve outcomes for ABI survivors. The following research questions could guide future studies and help refine therapeutic approaches:

1. "How does self-concept change over time in individuals with ABI?"
2. "How can interventions be tailored to improve outcomes in ABI survivors?"
3. "How do peer support groups impact self-concept in ABI survivors?"

By investigating these questions, future studies can contribute valuable insights into personalized rehabilitation strategies, fostering autonomy, and the importance of social support in the recovery process for individuals with ABI. This research will ultimately help refine therapeutic practices and improve self-concept and overall well-being for survivors.

In conclusion, this literature review highlights the complexity and multifaceted impact of ABI on self-concept, emphasizing both the challenges and opportunities for recovery. ABI often disrupts biological, psychological, and social dimensions of individuals' lives, leading to a decline in self-concept, self-worth, and feelings of isolation. This review underscores the

importance of individualized, autonomy-promoting rehabilitation programs, the role of strong support systems, and more, in fostering recovery. Future research, focusing on the evolution of self-concept over time, the effectiveness of tailored interventions, and the role of peer and family support, can further refine therapeutic approaches. By addressing these areas, clinicians and researchers can enhance recovery outcomes, helping ABI survivors regain a positive self-concept and rebuild meaningful lives.

Student Reflection

Throughout this capstone project, it has been an invaluable journey of growth for the student, both clinically and academically. The student's understanding of the complexity in which ABI impacts self-concept and the role of therapeutic interventions has deepened significantly. From a clinical perspective, the student has appreciation for the complexity of ABI recovery, recognizing that the rehabilitation process extends far beyond addressing physical limitations. The psychological and emotional aspects, particularly the reconstruction of identity, are just as crucial to individual's overall recovery. This led to the student's understanding of effective interventions and their need to be tailored to the individual, considering their unique emotional, psychological, and social needs. Each person's experience of ABI is different, and recognizing this helped the student see the importance of flexibility and individualization in therapeutic practices.

Research-wise, this project broadened the student's awareness of the need for strong methodologies that uphold the validity, reliability, and generalizability of findings. As well, the student understands how critical the factors within methodologies are in shaping conclusions drawn from research studies. Furthermore, as the student moves forward in their career, they feel a stronger sense of responsibility to adopt evidence-based approaches in their work. Their learning from this project also reinforced the importance of ongoing research and reflective

practice in fostering continual improvement in therapeutic strategies. By staying informed about the latest research and reflecting on their own clinical experiences, the student can evolve their practice to better support and empower individuals for healing, fostering resilience and improving clinical outcomes and individuals' experiences.

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