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EFFECTS OF ADLERIAN BIRTH ORDER AND DISABILITIES ON SIBLING RELATIONAL DYNAMICS: AN INCLUSIVE HEURISTIC INQUIRY

BY

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EFFECTS OF ADLERIAN BIRTH ORDER AND DISABILITIES ON SIBLING RELATIONAL DYNAMICS: AN INCLUSIVE HEURISTIC INQUIRY

Submitted by

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The thesis examination committee certifies that the thesis
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Dedication

I dedicate this work to my children, Lila, Levi, and Rhett, whose optimism and love have motivated me to fulfill my educational aspirations; and to my parents, Tim and Claudette, who have supported me throughout all my academic endeavours.

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I would like to begin by acknowledging the unconditional support I have received from my husband and family. Not a single moment of support has gone unnoticed, and I could not have completed this thesis project without you all. Thank-you for enabling me to follow my academic aspirations; I hope I have made you proud.

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To my participants, thank-you for trusting me to share your stories. I admire your openness to realize social justice, and the close bonds your family shares. I hope that I have accurately shared your lived experiences, and I know this study will benefit similar families and siblings.

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Abstract

The purpose of this study was to examine how birth order and disabilities impact family dynamics by gaining an in-depth understanding of individual family members' lived experiences. Although researchers have previously examined this phenomenon, a noticeable gap in the literature highlighted that the voice of the disabled sibling is unheard. The significance of this study was the inclusion of all consenting siblings in a family case study to explore the impact of disabilities on sibling-relational dynamics and birth order so that individuals with disabilities have a platform to share their experiences alongside their non-disabled siblings. In consideration of Adler's (1931) birth order, I explored how disabled and non-disabled siblings experience the impact of disabilities on the allocation of family roles and sibling-relational dynamics. Results highlighted themes of awareness, evolution, and direct impact; these results may contribute to a broader perspective for future counselling practices with families who live with disability.

Table of Contents

Chapter I

INTRODUCTION

Overview

This study involves using an Adlerian lens to explore the effects of disabilities and birth order on individual and familial experiences, notably sibling interpersonal relational dynamics. I have chosen this topic due to the relational dynamics I witness between my three children, given that my middle child has a physical, congenital condition called *arthrogryposis*. Arthrogryposis causes permanent joint contractures and limits mobility and independence; this factor influences the interactions between my children. As a family, we have had many celebrations and challenges. I often witness my children working together to help my middle child manage ableism, and I often think the experience of disability has strengthened their sibling relationships. On the other hand, I cannot deny the challenges my children face at times; for example, my child with disabilities shares his experiences of frustration and sadness, while my other two children speak of jealousy and protectiveness. However, my understanding of my children's sibling-relational dynamics is limited to my present day, 'in the thick of it' subjective perceptions as their mother. Therefore, I am curious to gain a broader understanding of how other siblings experience disabilities within their family-of-origin and from their perspectives as young adults.

Given that I am seeking to understand the essence of this phenomenon, as opposed to causal factors, the research goals align with the characteristics of a heuristic research question (Moustakas, 1990). Heuristic inquiry provides a platform for a researcher to explore and understand the lived experiences of others, without interpreting meaning. Participants make meaning of the researcher's understanding of their experiences, which may promote self-growth for all those involved in this research project.

Societal Perspective on Disabilities

The Canadian Employment Equity Act (1995) defined disabilities as an enduring or recurring physical, mental, sensory, psychiatric, or learning impairment. There is a large proportion of contemporary families who live with a child with disabilities; as of 2011, 15% of the world's population had disabilities (Statistics Canada, 2003; World Health Organization [WHO], 2011). Furthermore, there has been a cultural shift, over the last few decades, in caring for individuals with disabilities. In the 1960s, social advocates made advancements towards the process of deinstitutionalization, which encouraged families of disabled children to care for them at home (Meltzer & Kramer, 2016).

Most of modern society continues to honour deinstitutionalization, and social advocates continue to work diligently on promoting family home-care and societal inclusion for disabled children (UN General Assembly, 2006; United Nations Children's Fund [UNICEF], 2013). Similarly, UNICEF (2013) expressed the need to end institutionalization of disabled children and for increased support for family-based care and community-based rehabilitation. Additionally, the Convention on the Rights of Persons with Disabilities (CRPD) stated that children with disabilities deserve equal family rights, preventing neglect and segregation, amongst other unjust situations (UN General Assembly, 2006). The CRPD also expressed that parents should not lose guardianship of their disabled child unless it is in the best interest of the child and recommend that officials grant extended family guardianship. With the prevalence of disabilities and home-care options, it would be beneficial if counsellors were able to explore disabilities with respective clients and their families. Up-to-date disability statistics could enhance disability support funding and research possibilities.

Sibling-Relational Dynamics

Numerous situational and individual factors influence sibling relationships. Psychological birth order is an individual’s perceived familial position, which may differ from his or her ordinal birth order (Campbell et al., 1991). Thus, birth order does not always correspond to psychological birth order. In exploring sibling-relational dynamics and how disabilities impact them, it would be valuable to explore sibling roles through the lens of Adler’s (1931) *birth order theory*. Adler’s theory of birth order and *psychological birth order* offer a unique understanding of each sibling’s lived experience (Alder, 1931). It is important to emphasize that psychological birth order differs from actual birth order. Adler explained that “we experience reality through our own interpretation” (p. 125). In relevant studies, researchers who analyzed the effects of birth order found a significant correlation between birth order and/or psychological birth order and character traits (e.g., Eckstein et al., 2010; Gates, Lineberger, Crockett, & Hubbard, 1988; Kalkan, 2008).

Adler (1931) rationalized that familial positions are influential as siblings grow up in distinctly different circumstances. Abiding by this theory, examining birth order could disclose situational characteristics. To further investigate the effects of disabilities on the allocation of familial roles, it may prove useful to compare an individual’s ordinal family position to their perceived psychological family position (Campbell et al., 1991). It is beneficial to recognize that the occurrence of a disability affects all members of an immediate family (Graff et al., 2012; Miller, Buys, & Woodbridge, 2012). Corey (2013) stated that both birth order and psychological birth order influence adult interactions, highlighting the importance of exploring family dynamics. Notably, through the lens of Adler’s birth order theory, the presence of disabilities within the family dynamics impacts the allocation of family roles, relational connections, and the general understanding of an individual's lived experience and is especially evident in sibling dynamics (e.g., Begum & Blacher, 2011; Burke, Lee, Arnold, & Owen, 2016).

Although researchers have previously examined birth order and sibling-disability experiences, a noticeable gap in the literature highlights that the voice of the disabled sibling is unheard. There exists an abundance of articles regarding sibling relationships and disabilities currently in the relevant literature (e.g., Begum & Blacher, 2011; Burke et al., 2016; Dew, Balandin, & Llewellyn, 2008). Notably, researchers have thoroughly explored the lived experiences of the non-disabled siblings (Aksoy & Yildrim, 2008; Emerson & Giallo, 2014). However, there is a literature gap regarding the subjective experience of siblings with disability (Meltzer & Kramer, 2016). It is vital that counselling professionals do not discount subjective differences and consider how each sibling uniquely experiences his or her role in sibling relationships. Findings from this thesis project may help me to clarify what effects of disabilities are present for both the individual siblings and sibling interpersonal relational dynamics.

The purpose of this study was to examine how birth order and disabilities impact family dynamics, to gain a better understanding of an individual's lived experience. As such, in this study, I explored what effects of disabilities are present, at both individual and familial levels. The significance of this study is the inclusion of ***all*** consenting adults siblings in a family case study to explore the impact of disabilities on sibling-relational dynamics and birth order so that individuals with disabilities have a platform to share their experiences alongside their siblings. This emphasis on inclusiveness may benefit individuals, parents, counsellors, and counselling interventions regarding the implications of Adler's birth order theory and disability. The research question for this study was, *through the lens of Adler's (1931) birth order theory, how do* *disabled and non-disabled siblings experience the impact of disabilities on the allocation of family roles and sibling-relational dynamics?*

Chapter II

LITERATURE REVIEW

Overview

The purpose of this review was to examine literature concerning the effects of disabilities and birth order on individual and familial experiences, notably sibling interpersonal relational dynamics, and to analyze the research results critically. Emerging themes were synthesized and integrated from the literature, yet criticisms were acknowledged as they arose. It was clarified, by reviewing the relevant literature, that effects of disabilities are present, both individually for siblings as well as in sibling interpersonal relational dynamics. In turn, counselling implications also arose, providing avenues for personal and familial counselling interventions. The themes emphasize that through the lens of Adler's (1931) birth order theory, the presence of disabilities within the family dynamics impacts the allocation of family roles, relational connections, and the general understanding of an individual's lived experience and is especially evident in sibling dynamics (e.g., Begum & Blacher, 2011; Burke et al., 2016).

Regarding a search strategy, I made use of the online databases, including PsycINFO and PsycARTICLES, provided by the Athabasca University Library. The specific keywords I searched included: *birth-order research*, *Alfred Adler*, *psychological birth order, sibling relationships and disability*, and *family roles and disability*. I used peer-reviewed articles only to ensure the credibility of the relevant sources, with the majority of them published in the last 10 years; except for primary sources and the classic works of Adler, cited for theoretical purposes. Altogether, I sourced 25 peer-reviewed journals and referenced 32 articles, in addition to referencing verifiable websites and books. Furthermore, I purchased a digital copy of Adler's original works to refrain from using secondary sources.

Adler's Birth Order and Psychological Birth Order

Relevant studies that have been conducted to examine the effects of birth order, have shown a significant correlation between birth order and/or psychological birth order and character traits (e.g., Eckstein et al., 2010; Gates, Lineberger, Crockett, & Hubbard, 1988; Kalkan, 2008; Kalkan & Koc, 2008; Melek, 2008). Barni, Roccato, Vieno, and Alfieri (2014) had 384 Italian participants complete a self-reported questionnaire; they concluded from their results that birth order correlated with conservatism, regardless of other present variables.

In Gates et al. (1988) dated quantitative study, they discovered a significant relationship between birth order and psychological health. In their study, 404 children, aged 7-12 years, completed three separate scales. While their key findings showed a high correlation between birth order and psychological health, it differed from Adler's (1931) theory; they found that first-born children had less depression and anxiety than subsequent siblings. Eckstein et al. (2010) conducted a meta-analysis of 200 birth order studies, from 1960-2010, and found substantial evidence that supports Adler's (1931) theory. The researchers concluded that counsellors could benefit from using birth order characteristics, coupled with other developmental factors when implementing client treatment (Eckstein et al., 2010). This meta-analysis holds value because the researchers analyzed hundreds of studies, spanning 50 years.

Redefining Conventional Family Roles

A child with a disability influences family roles, which initiates the process of redefining conventional familial roles. All members of an immediate family are affected by the occurrence of a disability, and more often than not, extended family members as well (Graff et al., 2012; Miller, Buys, & Woodbrigde, 2012). Regarding extended family, grandparents tend to take on additional roles to offer emotional and instrumental support to the family, at times even relocating or retiring to help out (Miller et al., 2012).

In regards to parental roles, mothers and fathers of children with disabilities are often required to take on many additional roles, such as acting as a caregiver, nurse, and physiotherapist (Whiting, 2014). Woodgate, Edwards, and Ripat (2012) utilized an ethnographic approach in their research concerning families of children with complex needs. They completed one to three interviews with 68 parents from 40 Canadian families between 2009-2011; the interviews were in-depth and open-ended, lasting 90-180 minutes each. Their compiled data from all the interviews underwent several iterative steps of analysis to find common trends and differences. The results emphasized the numerous roles parents of children with disabilities undertake, ranging but not limited to, becoming experts on their children's needs to becoming social and health advocates.

When a child with disabilities is a member of the *family constellation*, siblings often take on the role of a caregiver (Burke et al., 2016). Sibling caregiver roles can include looking after the sibling with disabilities, as well as helping with potential medical needs (Graff et al., 2012). Siblings often take on a supportive role towards their sibling with disabilities (Atkin & Tozer, 2014). Atkin and Tozer (2014) expressed that supportive roles often evolve as individual needs can vary throughout a lifetime. Regarding the evolution of supportive roles, adult siblings of individuals with disabilities regularly undertake guardianship roles, when parents are no longer capable (Bigby, Webber, & Bowers, 2014). Bigby et al. (2014) conducted a qualitative study with 14 adults, whose siblings had intellectual disabilities and lived in Australian group homes. Bigby et al. conducted face-to-face semi-structured interviews with the participants, with follow-up telephone interviews every six months for three years. After collecting all the data from 62 sibling interviews, the researchers analyzed the data with inductive and descriptive coding. The researchers found that non-disabled siblings undertook additional sibling roles, such as offering emotional support, acting as health guardian and administrator, and monitoring formal care of their siblings.

Redefined familial roles have the potential to influence an individual's psychological birth order. Although ordinal positions are not affected by the presence of disabilities, Eckstein et al. (2012) noted that disabilities could alter an individual's perceived familial position. For example, if the youngest child has an older sibling with disabilities, due to different role expectations, he or she could perceive himself or herself in a first-born situation. Thus, he or she could demonstrate first-born characteristics as opposed to the expected Adlerian characteristics related to their actual ordinal position.

Effects of Disabilities and Birth Order on Sibling Relationships

Disabilities influence sibling relational experiences, highlighting feelings of responsibility, rivalry, stress, and optimism (Graff et al., 2012; Roper, Allred, Mandleco, Freeborn, & Dyches, 2014; Rosetti & Hall, 2015; Stalker & Connors, 2004). Meltzer and Kramer (2015) noted that it is important for psychology professionals to explore sibling interpersonal relational dynamics because sibling relationships are often the longest relationships (both familial and non-familial) in an individual's lifetime. Begum and Blacher (2011) expressed the need to account for both disabilities and birth order, among other variables, when exploring such relationships. Recent sibling-disability studies have highlighted common themes of rivalry, jealousy, responsibility, and joy (Graff et al., 2012; Rosetti & Hall, 2015).

Although the study of Stalker and Connors (2004) is dated, it foregrounded the perspective of children. Stalker and Connors utilized semi-structured interviews with 26 children, aged 7-15 years, who had siblings with disabilities. The siblings of children with disabilities described an array of emotions including feeling responsible for protecting their sibling from harm, feeling jealous over their sibling receiving differential treatment, being fond of their sibling, and experiencing average levels of irritation and rivalry within their sibling relationships. These researchers did not include the disabled siblings as participants, once again limiting relevant perspectives in sibling-disability research (Stalker & Connors, 2004).

Similarly, Graff et al. (2012) found that disabilities have both positive and negative influences on sibling relationships. These researchers interviewed 23 adolescents who had siblings with Down Syndrome and found common themes through inductive analysis. The majority of their participants noted positive experiences of growing up with a sibling with disabilities; however, many participants also expressed experiencing challenges and frustrations due to their sibling's behavioural issues.

Rossetti and Hall (2015) affirmed the commonality of these themes in their recent qualitative study. This study included 79 adults, who had siblings with disabilities, who completed an online survey. Using open, axial, and selective coding to analyze their data, Rosetti and Hall found that many of the siblings experienced guilt surrounding their sibling relationships, due to feelings of frustration and shame. The participants also emphasized that communication difficulties, due to a disability, had an adverse effect on their sibling relationships. A majority of the participants worried about the future care of their disabled siblings, thus emphasizing a common theme of stress. Joy was another common theme found in the study's results, with many of the participants describing having a close relationship with their sibling. This optimistic theme was echoed by Roper et al. (2014), who concluded that parents of children with disabilities perceived their children as having more positive sibling relationships than parents of typically developing children.

The Impact of Disabilities on Psychological Birth Order

Psychological birth order provids an environmental context, in that a personal or sibling disability impacts a child's perception of their familial position (Eckstein et al., 2010; Stewart, Stewart, & Campbell, 2001). Stewart et al. (2001) highlighted that the family of origin considerably influences how siblings develop their roles within the family constellation. Family challenges, such as disabilities, influence how family members interact (Carlson & Robey, 2011). The development of familial roles, influenced by personal or sibling disability, has the potential to affect an individual’s perceived position in the family. Eckstein et al. (2010) explained that personal disabilities might influence psychological birth order due to limited abilities. Having a sibling with disabilities impacts the allocation of different familial roles and expectations (Bigby et al., 2014), which could influence an individual’s psychological birth order.

In their quantitative study, Stewart et al. (2001) found that personality traits can be associated with psychological birth order positions. The researchers had 290 university students complete three separate self-reported questionnaires, and they analyzed the data through regression analysis. Stewart et al. found that “particular traits may have their origin in family experiences” (p. 383), thereby strengthening the notion that disabilities in the family constellation can influence psychological birth order. Results from this study showed that the psychological youngest birth order position highly correlatd with attention-seeking behaviour. Stewart et al. analyzed these data according to participant gender, which highlighted gender differences. Data relating to the psychological youngest child position revealed such differences, on account that youngest child characteristics “tend to be associated with feminine gender characteristics” (Stewart et al., 2001, p. 377).

Subjective Experiences of Siblings with Disabilities

The lack of available research that includes the subjective experiences of the disabled sibling limits the effectivness of counselling interventions. Sibling-disability research examines the effects of disability on sibling relationships; however, disabled siblings have been historically marginalized (Meltzer & Kramer, 2016). Meltzer and Kramer (2016) emphasized that researchers often focus on the psychological and social effects of disabilities on the non-disabled siblings. As Kramer, Hall, and Heller (2013) noted, sibling relationships are reciprocal, with shared activities and experiences enhancing the reciprocity. Given this reciprocity, all sibling perspectives are vital to acknowledge in sibling-disability research.

To further sibling-disability research, Dew et al. (2008) suggested conducting longitudinal studies, including the perspectives of siblings with and without disabilities, to find the impact of disabilities on psychosocial development and sibling relationships. Researchers have experienced ethical issues preventing them from selecting individuals with disabilities as participants. Marshall et al. (2012) discussed ethical issues that arose during their research with individuals with intellectual disabilities. The researchers encountered ethical matters such as managing the risk of coercion, informed consent, confidentiality, and disclosure. Informed consent is a predominant ethical issue in disability research; as Marshall et al. explained, cognitive abilities differ among disabilities which impact the manner in which participants understand and agree to participation consent. These ethical considerations are essential components to consider in this study, along with ensuring that the interview location is accessible to all participants.

Practice Implications of Ordinal and Psychological Birth Order

Implications of both ordinal and psychological birth order could offer counsellors a better understanding of a sibling's subjective familial experience, regarding planning interventions at the individual or familial levels. Counsellors could utilize Adler's (1931) birth order characteristics as guidelines when examining personality factors or a client's familial situation, being conscientious to avoid assumptions about clients' unique experiences. Furthermore, counsellors can easily gather information about birth order through quantitative or qualitative studies. Importantly, counsellors must avoid stereotyping their clients by their birth order (Corey, 2013), as numerous factors could influence personal characteristics, such as disabilities.

Additionally, knowledge of a client's psychological birth order position could provide valuable information about their upbringing (Karadeniz-Ozbek & Kalkan, 2016). For example, due to Alderian birth order characteristics, a client with a first-born perceived position could be presumed to have a strong relationship with their parents and siblings (Karadeniz-Ozbek & Kalkan, 2016). Counsellors may acquire information about the client by assessing their psychological birth order (Kalkan, 2008). Similar to birth order characteristics, counsellors must remember that psychological birth order, on its own, does not provide all the necessary information required for intervention planning (Karadeniz-Ozbek & Kalkan, 2016).

Campbell et al. (1991) developed *The White-Campbell Birth Order Inventory* (PBOI) as a quantitative means to analyze psychological birth order in relation to other variables. In their initial study, Campbell et al. had 561 participants complete the 40, yes or no statement, questionnaire. Their results showed that psychological birth order was considerably related to actual birth order. The PBOI is still being utilized in current research studies, as demonstrated by Kalkan (2008). Kalkan had 423 participants complete the PBOI and an additional questionnaire on relationship beliefs. Data analysis using a Pearson correlation analysis indicated that psychological birth order was significantly related to dysfunctional relationship beliefs relating to helplessness and unlovability. These results highlighted the notion that an individual's familial position may influence their romantic relationships (Kalkan, 2008).

There are numerous considerations for counsellors when examining birth order and psychological birth order with their clients. For one, although family of origin factors (such as disabilities) and actual birth order may affect a client's psychological birth order, no single factor determines it (Stewart et al., 2001). When considering blended families, birth order characteristics may no longer accurately reflect subjective experiences (Stewart, 2012).

Therapeutic Benefits of Examining Client's Family-of-Origin

Examining clients' unique experiences from within their family-of-origin, which facilitates an understanding of lifestyle and family dynamics, will benefit counsellors in providing appropriate therapy. Adlerian counselling places high importance on family dynamics, especially on sibling relationships (Corey, 2013). As such, Adlerian counsellors often utilize questionnaires on the client's family constellation to gather information about their lifestyle; information such as client successes, failures, and familial influences (Corey, 2013). Additionally, from an Adlerian perspective, a counsellor interprets a family as a social system, with all members' behaviours and developments being influential (Carlson & Robey, 2011). Other influential factors, such as birth order, favoritism, and family challenges, also affect the family constellation (Carlson & Robey, 2011).

Regarding family interventions, it would be beneficial for a counsellor to design interventions promoting positive sibling relationships for families comprising children with disabilities (Roper et al., 2014). Rieger and McGrail (2013) emphasized that counsellors can utilize coping with humour as a valuable tool during interventions in promoting positive familial dynamics in families with a child with disabilities.

Mozdzierz (2011) described his Adlerian approach with a middle-aged woman, who presented with symptoms of depression, due to her failing marriage and guilt over her responsibilities as caretaker for her grandchild with disabilities. After exploring her family-of-origin, her therapist discovered that her issues were all related to the patterns and beliefs influenced by her family constellation (Mozdzierz, 2011). Using an Adlerian perspective to help her understand her family dynamics promoted change for the client, by enabling her to formulate new decisions and direction for her life (Mozdzierz, 2011). This case example revealed how both the effects of disabilities and birth order influenced the client's subjective experiences and relational connections (Mozdzierz, 2011).

Critique

Adler's (1931) birth order theory is not without critique, including numerous studies discounting the theory's validity (e.g., Eckstein et al., 2010; Mills & Mooney, 2013; Stewart, 2012). Eckstein et al. (2010) conducted a meta-analysis, and their results highlighted two current limitations to Adler's (1931) theory: gender and blended families. The researchers emphasized that cultural, gendered beliefs have shifted since the 1930s, thereby limiting some of Adler's early notions about the importance of gender effects on birth order characteristics. Researchers have also brought attention to prevailing social norms; blended families are much more widespread now (Stewart, 2012). This reality merits attention because blended families make birth order positions complicated; for example, a first-born child shifting to second-born ordinal position due to acquiring step-siblings (Eckstein et al., 2010). Stewart (2012) concluded that to avoid these limitations, current studies of family dynamics must adapt to modern cultural norms.

Additionally, Mills and Mooney (2013) expressed that to avoid ranking issues in birth order studies researchers should exclude families with only one child and families with twins as participants; an only child differs considerably from a first-born child and Adler's (1931) theory overlooks the circumstances of twins. Barni et al. (2014) acknowledged limitations in their study, highlighting that their data did not examine birth order effects on blended families. These limitations reinforce the chosen within-family design of my proposed study, so that my application of Adler's birth order theory contains siblings with varying birth orders. However, it is also important to highlight the limitations of the Eckstein et al. study; the researchers did not include all available studies in their meta-analysis nor did they examine psychological birth order characteristics.

It is important to highlight the fact that the majority of available studies do not include the siblings with disabilities as participants. This research gap illuminates the lack of knowledge of how siblings with disabilities experience sibling relationships; thus, demonstrating the need to hear their voice. By excluding the perspectives of siblings with disabilities, research findings may be biased and culturally insensitive. With the lack of inclusive research available, it is hard to comprehend the impact of disability on their subjective familial roles. Additionally, a counsellor could cause potential harm to a client by neglecting to adapt psychological interventions to the client's personal circumstances.

Bigby et al. (2014) expressed that their study was limited because it did not include the perspectives of the siblings with disabilities living in group homes. Stalker and Connors (2004) did not include the disabled siblings as participants, once again limiting relevant perspectives in sibling-disability research. While Graff et al. (2012) acknowledged both the advantages and disadvantages of having a sibling with disabilities, their study was limited; the voice of the sibling with Down Syndrome is unheard. Rossetti and Hall's study is limited because it did not include the perspectives of the siblings with disabilities, and researcher biases (Leedy & Ormrod, 2016) may have occurred because both researchers disclosed having a sibling with disabilities.

Summary

A few themes have emerged from the liteterature. Adler's (1931) theories of birth order and psychological birth order continue to remain useful to the field of counselling psychology. Adlerian theory has beneficial aspects for both individual and family therapeutic interventions. The literature and research studies have indicated that the occurrence of disabilities influences all members of a family. This theme was demonstrated in the allocation of familial roles, in sibling relationships, and also in subjective perceptions of psychological birth order. An additional theme in the literature is the impact of disabilities on familial dynamics. While some of the reviews highlighted the potential negative effects of disabilities, such as stress and rivalry, the literature also highlighted positive effects of disabilities, such as joy and strong sibling connections. Finally, throughout the literature and research studies, it was emphasized that birth order, psychological birth order, and disabilities not be considered definitive factors in counselling theories and outcomes. It is crucial that counsellors take into account an abundance of personal and familial factors to form a clear picture of a client's situation. As society progresses, there could also be new areas of socializing worth considering in family dynamics; personal electronic devices may influence the communication patterns of a family constellation (Stewart, 2012) for example.

Chapter III

THEORETICAL FRAMEWORK

Adlerian Theory

Adler’s theory of birth order and psychological birth order offers a unique understanding of each sibling’s experience (Alder, 1931). It is arguable that psychological birth order is more important than actual birth order (Corey, 2013), yet birth order characteristics remain useful for understanding perceived and ordinal familial positions. Adler (1931) rationalized that familial positions influence individuals as siblings grow up in distinctly different circumstances. Abiding by this theory, examining birth order could disclose situational characteristics. In his book, *What Life Could Mean to You*, Adler (1931) categorized birth order characteristics. He noted that first-born children often experience a lot of attention and therefore must adapt to sharing parental attention with the arrival of a sibling. Typical characteristics include protectiveness of others, organization, and overly exerting their authority. Following sequence, Adler noted that a second child experiences a unique situation; he/she is accustomed to sharing parental attention and strives to keep up with the older sibling. Typical characteristics include a determination to surpass others and being successful. The youngest child, as Adler described, forever remains the baby of the family and is highly spoiled. Typical characteristics of the youngest child include the need for defeating the competition and the potential to be lazy. Lastly, Adler described an only child, who because he/she has no siblings, often competes against his or her father, and is spoiled by his or her mother. Typical characteristics of an only child include the desire to be the center of attention and the fear of gaining siblings. Centered on Adler’s ideas of birth order, counsellors may gain a deeper understanding of an individual’s lived experience.

Regarding Adler’s (1931) theory, birth order characteristics can also influence sibling interpersonal relationship dynamics (Begum & Blacher, 2011). As Adler defined birth order characteristics, the ordinal position of each sibling can influence their involvement in sibling relationships. For example, Adler explained that the oldest sibling often feels dethroned by subsequent siblings and therefore experiences rivalry within their relationships. In addition, an older sibling often takes on the responsibility for the welfare of younger children, opting to be both a caregiver and a teacher. Adler also explained that subsequent siblings often interact with older siblings by trying to overtake them (i.e., by being more talented and successful). As for the youngest sibling, Adler explained that they are often the center of the family and experience helpful relationships with their older siblings. If all siblings can overcome the dynamics of competitiveness and rivalries, their relationships will thrive (Alder, 1931).

Heuristic Theory

Moustakas (1990) developed heuristic inquiry, which is a structured manner to explore lived experiences. Specifically, heuristic research immerses the researcher into the chosen topic and encourages an internal search for self-discovery (Moustakas, 1990). Although heuristic inquiry is a variation of phenomenological inquiry that explores social phenomena, it differs because it openly focuses on the immersion and self-growth of the researcher (Scott & Brown, 2008). As such, Moustakas emphasized that a heuristic researcher must have experienced the studied phenomenon directly; this coincides with my chosen thesis topic as I experience the phenomenon of disabilities daily in my family constellation. Furthermore, heuristic inquiry also differs from phenomenological inquiry as its research participants can recognize themselves in the data and results, whereas in phenomenological research participants lose their wholeness during descriptive analysis (Douglas & Moustakas, 1985).

Heuristic research encompasses numerous concepts and phases (Moustakas, 1990). Specifically, Moustakas (1990) described seven heuristic concepts. *Identifying with the focus of inquiry* requires researchers to undergo a personal search into the relevant experience to understand their research question (Moustakas, 1990). The concept of *self-dialogue* requires researchers to be honest with themselves and their relevant experiences, while *tacit knowing* enables a researcher to understand the wholeness of something based on its parts (Moustakas, 1990). Moreover, the process of *intuition* helps to integrate implicit knowledge to explicit observations, while *indwelling* refers to the process of a researcher's retreat to an inner space to expand knowledge of meaning (Moustakas, 1990). Additionally, the concept of *focusing* requires researchers to examine and potentially shift their inner perspectives to expand awareness of relevant research factors (Moustakas, 1990). Finally, the researcher's *internal frame of reference* connects all heuristic concepts (Moustakas, 1990). In heuristic research, there is an emphasis on the researcher's internal frame of reference that promotes self-search, self-dialogue, and self-discovery (Moustakas, 1990). Furthermore, Moustakas defined six phases of heuristic research including the initial engagement, immersion, incubation, illumination, explication, and creative synthesis.

Heuristic research begins with a question the researcher seeks to answer; notably, the question must have personal and social implications (Moustakas, 1990). As my son with physical disabilities is 8-years-old, I have been pondering the effects of disabilities on my family's dynamics for many years now. Additionally, I am passionate about my chosen research topic because it directly relates to my family. This aspect coincides with Moustakas's (1990) belief that heuristic inquiry is a demanding process, which requires an intense commitment from a passionate researcher. Specifically, heuristic research differs than other research methods as it places high importance on this passionate discovery process (Douglas & Moustakas, 1985).

Chapter IV

RESEARCH METHODOLOGY

Overview

For this thesis project I employed a qualitative design through a heuristic approach (Moustakas, 1990). A qualitative design yields rich narrative data and provides others with a deeper understanding of how individuals holistically make meaning of their lived experiences (Glesne, 2016; Taylor, Bogdan, & DeVault, 2016). A heuristic approach encourages researchers to challenge their current understanding of the phenomenon being studying, by using an open-ended approach to gain additional understanding of their participants' unique experiences with the phenomenon (Moustakas, 1990). Therefore, utilizing a heuristic approach for this thesis project allowed me to gather rich descriptions from each sibling regarding the impact of disabilities on both their sibling-relational dynamics and individualized familial roles.

Pre-study Tasks

In heuristic research, pre-study tasks include the initial engagement and immersion into the research topic, methods of heuristic preparation, and qualitative research formalities, including obtaining ethics approval.

Phases of Heuristic Research: Initial Engagement and Immersion

The first phase of heuristic research is the *initial engagement*, which requires researchers to discover a topic of interest that they are passionate about and that has personal and social implications (Moustakas, 1990). This phase utilizes the concepts of tacit knowing and intuition and encourages a researcher to examine their social experiences in relation to their inner frame of reference; this exploration leads to the development and refinement of a researcher question (Moustakas, 1990). Moreover, this exploration is highly influential in the formation of a thesis research question and the clarification of terms for this research project, with contemplation about how physical disabilities impact family functioning and dynamics and the relationships between siblings.

Moustakas (1990) described the second phase of heuristic research as *immersion*, during which researchers rely on self-dialogue, intuition, and tacit knowledge to guide an investigation deeper into the research topic. Thus, intuition and tacit knowledge guided the parameters of the literature search, while self-dialogue allowed the personal experiences of the researcher to be present in the research conceptualization and conduct.

Heuristic Methods of Preparation

Moustakas (1990) provided some methods of preparation for heuristic research. To begin, heuristic researchers prepare for their study by developing a set of instructions that explain the nature, purpose, and process of the study for the participants (Moustakas, 1990). This information is crucial as they provide participants with knowledge that could either deter or support their decision to consent to participate in the study. The information letter aspect of my study consent form contained these crucial instructions as did my recruitment tool (see Appendix A and B).

Next, a heuristic researcher decides upon participant criteria (Moustakas, 1990). It is important that a researcher design relevant inclusion/exclusion criterion to ensure that the selected participants share the same phenomenon experience. The participant criteria for this thesis project included dyads or triads of adult siblings with the requirement that at least one of them have a physical disability. Given the occurrence of co-morbid conditions with physical disabilities, including intellectual disabilities, I had to decide whether I would include siblings with intellectual disability. If a participant had intellectual disabilities as well, the researcher would need to ensure he or she could legally give and understand informed consent (Canadian

Psychological Association [CPA], 2017). I decided to consider intellectual disability as an exclusion criterion for this master's-based research project.

A heuristic researcher further prepares themself by considering how to create a peaceful atmosphere, plan relaxing activities, and construct a method to check-in with participants during data collection (Moustakas, 1990). These considerations ensure participants feel comfortable in sharing their personal experiences and promote a strong working alliance, as well as remind the researcher to support the process of informed consent throughout the study. A researcher also creates a recruitment plan to access participants, as well as ensure they have the appropriate technology needed for the interviews (e.g., audio-recording equipment).

Ethical Considerations

An additional pre-study task was obtaining approval from Athabasca University's Research Ethics Board (REB) (see Appendix C). I had numerous ethical considerations to address considering the chosen research topic. I considered the participants in my study to be a vulnerable population as this study was inclusive of those with physical disabilities (CPA, 2017). In my ethics application, I addressed potential adaptations to ensure that all participants were able to take part in the study (i.e., accessibility of study location and oral completion of consent form). My consent form was comprehensive and met CPA's (2017) ethical standards (see Appendix A). My consent form covered all areas of my research study, such as withdrawing consent, publication details, and data retention (Leedy & Ormrod, 2016). These ethical considerations align with the Tri-Council Policy (see Appendix D).

Data Collection

Participant Selection

Specifically, heuristic researchers implement ethical practice and decision-making surrounding participant inclusion/exclusion criteria and interview protocol. Heuristic researchers refer to their participants as *co-researchers* as heuristic research is a collaborative exploration between the researcher and the participants (Moustakas, 1990). Moustakas (1990) recommended that a heuristic researcher seek out 1-15 co-researchers for their study. Regarding this thesis project, a family comprised of at least three siblings was to be selected to gather various, thick descriptions of the phenomenon. Moreover, this study utilized purposive sampling (Leedy & Ormrod, 2016), as a family was selected based on its ability to meet participant selection criteria.

Selecting non-related co-researchers who share this phenomenon may make it easier for a between-family design, as it could be difficult to find a family where enough siblings are willing to participate. However, this study employed a within-family design to interview siblings from the same family (Damian & Roberts, 2015), to coincide with Adler's (1931) birth order theory. While the results yielded from each design could have different implications towards birth order characteristic and family role, this study focused specifically on a single-family case study due to exploring both sibling and familial dynamics. A between-family design, with participants selected from various families, could result in the accidental omission of an ordinal birth position, while a within-family design ensures various siblings in differing birth order positions take part in the study (Damian & Roberts, 2015). Damian and Roberts (2015) suggested that an ideal birth order study incorporates aspects of both designs. Furthermore, as Adler's (1931) birth order theory is not culturally diverse, I examined how this theory fits with the selected co-researchers’ cultural location (Stewart, 2012). I uploaded my recruitment posters to social media and received various emails from individuals interested in participating in my study.

Interview Process

Researchers typically use extended interviews to generate data in heuristic research (Moustakas, 1990). An extended interview does not follow a set time, which allows the co-researchers to divulge their stories in a natural conversation (Moustakas, 1990). As such, I ensured ample time for each interview so that each co-researcher could discuss all aspects of each question they deemed important. The lack of a time restraint may require that a researcher conducts only one interview per day, so all co-researchers have equal opportunity. Significantly, the interviews will be conducted separately with each sibling. Throughout the entirety of the interviews, it was crucial that I attended to all ethical nuances (CPA, 2017) and periodically checked-in with my co-researchers (Moustakas, 1990). For this study, I had the contact information for the city’s mental health walk-in clinic at the interview, in case a participant inquired about counselling during the course of the interview.

To remain consistent, I prepared the questions in advance for the extended interviews to ensure that I asked all participants the same questions (see Appendix E). I was open to modifying or omitting questions if necessary. It was important that the prepared questions met ethical considerations and did not cause participants undue harm (CPA, 2017). Moreover, the consent form was explicit in explaining that I could not guarantee anonymity among participants, as the co-researchers knew familial details (e.g., birth order and disability factors). However, unlike the interview questions, I could not pre-plan genuine conversation as it required cooperative dialogue and empathetic listening (Moustakas, 1990). The extended interviews took place at a familiar location to the participants for their comfort, with the specific details remaining confidential in order to preserve anonymity. To document all relevant information, I audio recorded the content of the interviews, which ensured that the conversation flowed without pause to take notes (Glesne, 2016). I transcribed each interview, upon completion (Moustakas, 1990).

Data Analysis

Five of the six phases of heuristic research were relevant to data analysis. These phases enabled me to subjectively understand the lived experiences of my co-researchers, both individually and collectively. It was crucial that I did not seek to interpret the collected data, but that I strove to understand my co-researchers' experiences and related my understanding back to my co-researchers in an effort to make meaning (Moustakas, 1990).

Phases of Heuristic Research: Immersion and Incubation

To begin data analysis, I first organized the interview transcriptions and notes according to each co-researcher (Moustakas, 1990). Next, I fully *immersed* myself in the data until I acquired in-depth knowledge of each co-researchers lived experience and the group of co-researchers as a whole (Moustakas, 1990). Periods of *incubation* also occurred throughout the immersion phase, where I took necessary breaks before re-immersing into the data (Moustakas, 1990). Incubation periods were essential for tacit knowledge and intuition to progress and granted me with clarity of the data and expanded my understanding (Moustakas, 1990). Throughout these two phases of this thesis project, it was vital that I did not rush the delicate balance of immersion and incubation, which took a few months.

Phases of Heuristic Research: Illumination and Explication.

Following the incubation phase, I re-examined the generated data (Moustakas, 1990). I took notes as I reviewed data until I could accurately depict each co-researcher's lived experience as well as a composite depiction of all co-researchers (Moustakas, 1990). These individual depictions coincided with the fourth phase of heuristic research, which is *illumination* (Moustakas, 1990). The process of illumination also enabled me to look for common themes and qualities (Moustakas, 1990). As such, it was vital to use vivid details and verbatim quotes as examples (Moustakas, 1990). I compared my data depictions to the interview transcriptions and notes, as well as checked with the co-researchers for accuracy (Moustakas, 1990). I communicated with the co-researchers for a second time at this point of my study to share their depictions. After the co-researchers examined the accuracy of my portrayal of their lived experiences, they emailed me written narratives to utilize to enhance their individual depictions. It was vital that I remained open to the illumination process, which highlighted qualities and themes related to the research question (Moustakas, 1990). I remained in this phase of research until I had an internal understanding of the universal qualities and core themes (Moustakas, 1990). Throughout this phase, I sought to discover explicit qualities of the studied phenomenon that were outside of my implicit perspective. I acknowledged all positive and negative qualities of sibling relationships and disabilities, as they arose, even if they challenged my personal beliefs of how disabilities impact family constellations.

The fifth phase of heuristic research was *explication*; this phase required a more detailed exploration of the relevant themes and qualities to gain a deeper understanding of the meaning of the phenomenon (Moustakas, 1990). It was vital that I addressed my own subjective experiences throughout this phase; explication utilized Moustakas’ (1990) concepts of focusing and indwelling, which guided the internal search of my unconscious awakenings. Although indwelling created an internal space for me to explore themes, and potentially discover new ones, I did not interpret the data; I simply saught to understand it (Moustakas, 1990). The explication phase revealed how the themes and qualities combine to form a larger picture (Moustakas, 1990).

The co-researchers lived experiences are both represented in the composite depiction, which strengthened the connection between the studied phenomenon and the lived experiences to reveal both intrapersonal and interpersonal meanings (Moustakas, 1990).

Phases of Heuristic Research: Creative Synthesis

The final phase of heuristic research was a *creative synthesis* of my overall experience, which I could only reach through tacit knowledge, intuition, and self-searching (Moustakas, 1990). Moustakas (1990) noted, “the heuristic researcher develops a *creative synthesis*, an original integration of the material that reflects the researcher’s intuition, imagination, and personal knowledge of meanings and essences of the experience” (p. 50). Based on the self-growth I achieved and the knowledge I acquired by progressing through the earlier five heuristic stages, I experienced personal growth and evolution of my self.

Reflexivity and Rigour

Both heuristic and qualitative research call for researchers to address and implement reflexivity and rigour. Leedy and Ormrod (2016) noted that in qualitative research, a researcher attends to reflexivity by acknowledging their personal biases. Moreover, Douglas and Moustakas (1985) expressed that heuristic researchers can reinforce the validity of heuristic research through authenticity, by being truthful and reflective of their self-dialogue and their experiences with the phenomenon being studied.

Concerning rigour, I could not seek validation through statistical correlations; it was a personal subjective judgement. (Moustakas, 1990). As such, I had to evaluate if my self-search and internal frame of reference accurately explicated the meaning of my co-researchers’ lived experiences (Moustakas, 1990). Moreover, I was able to achieve credibility through an intense commitment to my research project (Douglas & Moustakas, 1985). Therefore, I returned to the collected data numerous times to review the significance of the qualities, which helped to validate the composite depiction of the essence of the phenomenon (Moustakas, 1990).

Aside from my re-checks with the raw data, I evaluated validity through my co-researchers (Moustakas, 1990). It was crucial that I explored and discussed the individual and composite depictions with the co-researchers to ensure that their experiences were accurately and comprehensively represented (Moustakas, 1990). Had the co-researchers requested revisions, I would have respected their wishes and made necessary changes until the depictions are satisfactory. This validation was significant because I was not trying to interpret or make new meaning, I was attempting to understand the experiences of the co-researchers through my own internal frame of reference.

I demonstrated reflexivity throughout all phases of my heuristic research. As my internal frame of reference was always at the forefront, I had to continually address personal perceptions and biases (Moustakas, 1990). Furthermore, I took notes throughout data collection and analysis (Moustakas, 1990) to gain clarity and reflect on the processes.

Conclusion

Notably, heuristic research was the guiding research methodology for this thesis project. Heuristic research was beneficial, as the lived experiences of the co-researchers are present in the collected data and presented results. Moreover, the process of the co-researchers making meaning of their lived experiences contributed to the practice of psychology by highlighting interventions areas of individual and familial counselling. Employing a heuristic approach enabled me and the co-researchers to gain a greater understanding of the effects of disabilities, contributing to all of us experiencing self-growth. Furthermore, as this topic is relevant to my daily life, I was committed to the research question until I was able to complete individual and composite depictions of the sibling experiences accurately.

Chapter V

RESULTS

As previously defined in my methodology chapter, I followed Moustakas' (1990) directions and relied on all heuristic processes as I progressed circularly through the heuristic phases of data analysis. Alternating between phases of immersion and incubation proved both useful and necessary to reach the phases of illumination and explication. Through the processes of intuition, indwelling, and focusing, I was able to explicate three core themes and seven subthemes. Both my participants, whom I refer to as co-researchers, expressed themes of *awareness*, *evolution*, and *direct impact* of the phenomenon being studied during our intial interviews and subsequent emails. Noted in each theme were contextual factors of the self, other, and world. I will present my findings through three of Moustakas four representations; individual depictions, composite depictions, and my personal creative synthesis. I have chosen to omit exemplary portraits as I only had two co-researchers and was able to vividly depict their lived experiences through the individual and group depictions; I would have proceeded differently had more siblings participated.

Individual Depictions

I will provide a detailed, individual depiction of each sibling's lived experience with disabilities and familial constellation, emphasizing intrapersonal factors. To further enhance each co-researcher's lived experience with the phenomenon, I have included personal excerpts at their request. As a heuristic researcher, I have also bracketed myself within this study; therefore, I have also included my own personal depiction.

Co-Researcher - Sibling A

Sibling A is non-disabled, Caucasian woman in her 30s. She has two older half-brothers, one of whom passed away many years ago, and a younger biological brother who has a physical disability. She grew up in the same small town for the first 18 years of her life, until she moved away on her own after graduating high school. Although she has lived independently in other provinces, she has recently moved back into her family home with her parents and younger brother. She expressed that she has numerous interests (e.g., sports, reading, and music) and has college diplomas in tourism and community service. She has just accepted a job offer to work with individuals with disabilities.

> [Sibling A] I have been in and out of my parents house for a long time, and when I don’t live with my brother, I feel like something is missing. It always feels extra quiet without him, as I am sure he would say the same about me. Although he can have mood swings, he is a joy to be around and live with. I think my favourite memory of us is the many trips we took together, usually with other family members, to various places. I met him for the first time when he was born, in a children’s hospital in another province. He had tubes all over his body. Sometimes as a family, we have all felt his struggles and frustrations, as he had many obstacles and diversity in his life. He has overcome many of those and it makes me very proud to be his sister. He has found employment on his own without the help of any case manager, and he hosted his own [mental health fundraising] event which was successful and will hopefully make it an annual event. He is so humble that all I did was give him the idea and do very little and he gave me tons of credit. We share a love of music and going to concerts and have gone to many together which are always a lot of fun, from the foo fighters, motley crue, bon jovi, haywire, matthew good,

> our lady peace, the stanfields, the sheepdogs, guns and roses, and many more, we plan on going to stone temple pilots in a few months. I think we are closer than most siblings. He had been bullied a lot and I often had to stand up for him. I think he looks up to me. He usually always listens to me and what I have to say. I think we will probably live together off and on forever. That might be the plan. I remember often watching him play softball soccer and hockey. He loved it. He loves to sleep. I often tease him for it. We love to laugh together, and our talks at the supper table are the best. Usually my friends become his and his friends become mine. We have such a special relationship and bond. I am very lucky to have him and I wouldn't trade it for anything.

Co-Researcher - Sibling B

Sibling B is a Caucasian male with Cerebral Palsy (CP), in his late 20s. Cerebral Palsy is a permanent, physical condition which occurs in utero or during birth (Shrader & Salzbrenner, 2018). The symptoms of CP can impact body movement, muscle control, muscle coordination, muscle tone, reflex, posture, and balance; secondary symptoms can lead to sensory and cognitive disabilities (Shrader & Salzbrenner, 2018). He was born two months early and exhibits various characteristics of CP, such as mobility issues, lack of muscle tone. He is the youngest brother of Sibling A, and he has always lived at home with his family. He graduated from the nearby public high school and has held various jobs. He enjoys music and sports and currently works at a nearby restaurant.

> [Sibling B] Living with family with a disability has been a very supportive experience. There were always things that I had trouble with growing up and they were always there to help sometimes it would be overwhelming but I always appreciated it. I always enjoyed attending live music events or going on trips with family even if it was trips to

> [largest city in neighboring province] for operations. I would always have a great time. At times I would become depressed especially in my younger years, but my family would always be there. Employment in a restaurant really helped me a lot both with my disability and depression because it gives me a sense of purpose and makes me feel that I can do things on my own. Putting on my own event has done the same and I was able to do it with family and friends. I feel I am very close with both my siblings and I have a closer relationship with them and I wouldn't trade it for anything

Researcher

My husband and I have an 11-year old daughter, and two sons, ages 9 and 4 years old. Our middle son has a rare congenital condition called arthrogryposis. His physical condition is not progressive, but it causes joint contractures and limits his mobility; as such, he cannot actively bend three of his four limbs. My middle child has been receiving numerous forms of therapies, and surgeries, since birth; these appointments were a factor in my husband and I waiting five years before having our third child. In my perspective, having three children, one of which has different abilities, has shifted our family's dynamics. Compared to Adler's (1931) birth order theory, our middle child receives much more attention, due to his medical needs. In addition, our children interact differently; for example, our youngest son will help his older brother put on his braces and help get him ready for the day. Our children are very protective of each other, and our daughter is always around to help both her brothers. Jealousy and frustrations occur at our house, be it jealousy of time spent with our middle child for appointments, or frustrations that our middle child mentions due to a lack of ability to be fully independent. As much as we have challenges, we face them together as a family, and I am proud of the strong bonds I witness my children having with one another. I truly believe that having a child with disabilities in our family has influenced all of us, even extended family, to be more empathetic towards others and has strengthened our family relationships.

Composite Depiction

I will provide a composite depiction to portray the shared themes found among the two co-researchers. As a composite depiction is a collective view of the studied phenomenon, it highlights each core theme in detail, experienced both intrapersonally and interpersonally by the co-researchers.

Awareness

Merriam-Webster defines awareness as “knowledge and understanding that something is happening or exists” (Awareness, n.d.). For this study, I defined awareness as moments in which the unconscious becomes conscious; notable moments of recognition that alter an individual’s worldview. As such, experiencing disabilities within a family constellation brings forth unique points of awareness or opportunities for epiphanies to highlight areas of unawareness. As addressed by the co-researchers, these points of awareness are fluid, often changing with their developmental phases.

Awareness of self. Developmental progress and expansion of cultural location impacted the co-researcher’s awareness of self. Both siblings noted that social experiences outside of their family home impacted their awareness of disabilities. Beginning public school seemed to have had a big impact on both siblings, in how they viewed their personal and familial circumstances.

> [Sibling B] I noticed whenever I started grade one ‘cause I don’t have very much memory of the first five years…I remember there was always certain people helping me tie my shoes.

Prior to entering elementary school, Sibling B was seemingly unaware of his disabilities, despite numerous doctor visits and extensive therapies; it is as though his awareness expanded with the growth of his cultural location within the school community.

Sibling A also attributed developmental progress to her awareness of self, noting that her understanding of her family's constellation and its impact on her self expanded as she progressed from child to adult. As Sibling A reviewed the interview transcriptions at a later date, her self-awareness continued to develop as we co-created meaning of her lived experiences in light of the themes. One epiphany that Sibling A noted after reviewing her interview as a verbatim transcript was that perhaps she did not want to have children due to self-described selfishness, which she contributed to the lack of attention she perceived as receiving as a child.

Awareness of others. Having medical needs in the family influenced how the co-researchers understood those around them. Sibling A expressed that while she recognized that her younger brother had physical disabilities, unfamiliar disabilities made her uncomfortable until she worked in a group home for adults with cognitive disabilities.

> [Sibling A] Okay, so my brother was able to talk. Eventually, he was able to walk, do things that I guess you can say normal people do…so, I was always comfortable with it, and it didn't bother me. I would go to other people's places…where there would be persons with disabilities there. And I didn't quite feel comfortable. So, I kinda wanted to show how I wasn't…as comfortable and as aware about the nature of disabilities in the first place, even though I was living it.

Sibling A was able to recognize her discomfort with ambiguity, the vast differences encompassed under the term disability, and how expanding her cultural location influenced her comfort level.

> [Sibling A] I started living in a home with disabilities, full-time…so I had four clients, and two of them were non-verbal, so I really definitely changed my perspective.

Her comfort levels expanded through personal exposure and education; as her understanding of and experience with cognitive disabilities increased, so did her ease with disabilities different than her brother's.

Sibling A also expressed a shift in awareness of her brother's needs and the appointments his parents attended to with as a child. As a child, she experienced frustrations over time lost due to her brother's medical appointments, yet as an adult, she came to understand the importance of such appointments and no longer experienced the same frustrations when looking back at her childhood. Recognizing the value of the medical appointments justified the lost time she experienced from her family.

> [Sibling A] They were always gone with appointments. And I think with that; it's kind of weird because looking back on it, it's like I understand it now as an adult. But probably as a child, I'm not sure if I understood why he had to go through all those things…that took time away. So, if I would have understood the importance of it when I was growing up, maybe, it would've changed my perception a little.

Sibling B also noted a shift in awareness to others, highlighting personal challenges in both sibling and friend relationships. When he spoke about his relations to his siblings, he recognized that it is more challenging to seek help from his siblings now, compared to when he was younger; however, his responses were vague.

> [Sibling B] … not being able to do certain things for myself…more now that I am older. But I did recognize it whenever I was younger too.

He also recognized that while friends helped him with his special needs in elementary school, they began to exclude him, intentionally or unintentionally, in junior high. Sibling A similarly expressed that she believed his friends were more supportive during elementary school and that they often left him out of social events during junior high.

Awareness of the world. Sibling A emphasized a few notable points of recognition in light of her current society. She noted that she was motivated to switch careers from tourism to community service because she experienced individuals treating her poorly in a hotel setting, while in contrast, she experienced individuals applauding her for working with children and individuals with special needs. However, given this recognition, Sibling A experienced conflict in that the available social services are lacking for her brother and noted that he is not receiving enough support from them.

> [Sibling A] The resources aren’t always there, so it’s really hard. I’ve been through counselling; he’s been through counselling. I’m not afraid to say that.

Sibling A further clarified that in addition to lack of resources, some individuals within the support system are unkind. These points of recognition occurred as she aged and became more proactive in her brother’s care. In addition to the lack of social services, Sibling B emphasized his desire for the world to recognize him as an individual, apart from his medical condition.

> [Sibling B] Just, I think it’s big that you understand that they’re a person and have different relationships with siblings.

Addressing the impact of disabilities on sibling relationships was important for Sibling B, which to him, impacted his sibling relationships more than birth order. His emphasis on the relationship as opposed to birth order became stronger for Sibling B as a result of his responses.

Sibling B did not discuss factors related to birth order in light of his sibling relational dynamics, nor did his perceived birth order differ from his ordinal birth order.

Evolution

My co-researchers were asked to reflect on both their past and present experiences with their familial constellations and disabilities. Specifically, they discussed their family roles (e.g., chores, parental expectations, and personal expectations) and family relationships. As the co-researchers aged and underwent developmental stages, their degrees of autonomy and relationships with others evolved.

Autonomy. Throughout the interview, each co-researcher was asked to share their experiences with family roles, as defined as chores and parental expectations, and their degree of independence, at times comparing this subtheme from childhood to the present day. Sibling A reflected on her family roles growing up, emphasizing that although her parents were busy tending to her brother's medical needs, she did not experience an increase in familial chores or roles. However, she did express wonder that if her mother had held a job at this time, would she have been asked to do more around the house.

> [Sibling A] It's kind of interesting because I feel like I didn't really have any [chores or parental expectations]. Even having someone with a disability, I feel like my parents took that on for themselves and didn't put that on me so much if that makes senses?

Interestingly, Sibling A discussed the consequences of her lack of roles at home considering when she moved out of her family home after high school. While she did not express disappointment towards this lack of roles, she explained it left her unprepared to live on her own.

> [Sibling A] Because I got out on my own and I didn't know how to do anything. I was twenty, and I was like "Oh, how do I do laundry?... How do I cook?" I didn't really know

> how to do all that stuff but luckily for me, even though I didn’t have those roles, I learned it in my jobs, every time. So, I did, I worked at a motel, so I learned to do laundry. I worked at a restaurant; I learned how to cook.

Sibling A gained autonomy through various jobs and by moving outside of the family home. She jokingly revealed that since she moved back home, her mom has started to clean her room again. However, she did not further comment on her mother reverting back to completing the family chores. Sibling A also noted that she felt her parents held high expectations that she attends church, be respectful, and do well in school.

Sibling A did note an evolution in her roles since returning home as an adult. She expressed various times throughout the interview that she moved back home to offer support and help out her brother, and to help her father, who recently underwent heart surgery. She spoke fondly of her parents driving her around to various activities as a child and adolescent and is now using her ability to drive her family around as a means to help them.

> [Sibling A] I think I do a bit more obviously than I could previously. Even with driving…because, my brother can’t drive…just advocating for him more or something like that, now that I know more and I’m older I can do that now.

Sibling B discussed the evolution of autonomy in his familial roles. In comparison to Sibling A, who expressed a lack of family roles and chores, Sibling B expressed that his family roles and chores were on par with his expectations. He stated that he had regular roles and expectations growing up.

> [Sibling B] I’d say a little bit, not much…clean my room or clean up after myself.

Sibling B noted his roles and expectations have evolved as he has aged. As he is now an adult, his parents encourage him to seek employment and follow his passions. He still lives at home, but he is gaining autonomy through the roles and expectations of his employer and his hobby groups. He perceived a lack of independence, due to CP, as a challenge.

> [Sibling B] Well, I have trouble tying my shoes or, say, cooking a meal. So that can be really challenging at times, always asking for someone's help or whatever. It was hard to find work.

Now that Sibling B is employed, he expressed satisfaction with his job position and its expectations. Gaining independence was a common theme throughout the interview with Sibling B, as he frequently noted the challenges in requiring help from others and the positive effects of working outside of the home.

Relationships. As neither co-researcher mentioned a significant other, the subtheme relationships encompassed familial relationships and friendships. Sibling A emphasized that she highly values relationships and she attributed her brother's CP and other family stressors (illness and death) to close familial connections.

> [Sibling A] So, my friends are very important to me and my family as well. A lot of the reasons why I moved around so much and came home so many times again was because of my family. That has made us a very strong close family, and because of that, it's like I know that they are a huge priority for me.

Sibling A also spoke to the evolution of her relationship with her mother. Although she expressed that she and her mother disagreed at times when she was a teenager, she noted that they now have a very close relationship.

> [Sibling A] I think we still had a good relationship…I was a teenager for sure…with the attitude and arguing and fighting [now] we're like joined at the hip.

As Sibling A discussed her relationship with her father, she emphasized that it has always been a positive relationship, which continues to strengthen.

> [Sibling A] Now with his health issues, I feel like that has brought us a lot closer together as well.

In contrast to Sibling B, Sibling A noted that she makes friends easily. As there are too many variables to make a direct comparison between the co-researchers (e.g., age, gender, external and internal factors), birth order and disability alone cannot be assumed to impact their relational views.

> [Sibling A] I've had it really easy to make friends…I am usually pretty good at least making an effort.

Sibling A expressed having positive relationships with her brothers and focused her attention on the brother who participated in the study. Sibling A did not express negativity in her sibling relationship and noted that Sibling B values her opinion, which brings her contentment.

> [Sibling A] Yeah, so even as teenagers, I feel like we had probably got along better than most siblings could. And as adults now, it's great. We hung out this afternoon and chatted and stuff about life and stuff…we actually hang out like friends.

An evolution Sibling A noted in her relationship with Sibling B is her taking on the supportive role of an advocate; with limited resources in her province, she has been supporting her brother in navigating social and health systems. Sibling A offers personal support to her brother by defending him to others, when needed, and by offering him emotional support. Regarding systems, Sibling A is an ally and attends meetings and appointments with her brother.

> [Sibling A] Advocating for him more or something like that, now that I know more and I'm older I can do that now. I think the journey of advocating, I learned a lot about the

> system. But also just not giving up and then knowing that in the end, it turned out…well, so far it turned out pretty good…most rewarding just being able to be there as support.

Although she felt frustrated due to her brother's medical needs as a child, the frustrations did not impact their sibling relationship; now, advocating for his medical needs positively impacts their sibling relationship. Sibling B appreciates the support, and in turn, Sibling A feels valued and helpful.

Regarding parental relationships, Sibling B noted that his relationships with his parents had remained the same from child to adulthood.

> [Sibling B] I find I'm close with Dad, but Mom too. I'm pretty close with Mom too, I think.

He expressed that his relationships with his siblings were great when he was younger, which was reaffirmed by his openness to discussing his challenges with them. However, he and his older brother recently have not gotten along, but he was hopeful that they could repair the ruptured relationship. He chose not to disclose information about the rupture, which further highlighted that he did not express any negative comments towards any of his family members.

> [Sibling B] But we were great when we were younger…and it's getting better.

Sibling B also expressed dissatisfaction with his social circle and noted that technology is a potential factor in keeping friendships, as he finds the use of online communication impersonal.

> [Sibling B] It's hard to…friends sometimes, not just to find a friend but to keep friends too.

Direct Impact

The theme of direct impact encompasses two subthemes, birth order position and the presence of disability in the family constellation. Co-researchers were asked to examine the personal impact of each subtheme.

Birth order. For this study, birth order is the ordinal birth order into which the participants were born. Perceptions of perceived birth order, which can vary due to numerous internal and external factors, were also included in this subtheme if they arose.

Sibling A is a middle child, but due to various factors, such as having a blended family, losing a sibling, and noticeable age gaps between siblings, she felt as though her birth order position was hard to define. She addressed that different familial factors impacted her perceived birth order position, such as when her older brother moved out of the family home. Due to these factors, she expressed that experienced her birth order position to fluctuate often. While contemplating Adlerian birth order characteristics, she noted that perhaps her changing view of her birth order position influences her perceived birth order traits, which seem to fluctuate between middle child and older child. It is important to note Adlerian birth order characteristics were not discussed during the interviews, as both co-researchers had an overall understanding of them from social media.

> [Sibling A] I think I do fit a lot in the middle, but I also fit as older, and I can see that in myself more.

Although Sibling B has a blended family, his birth order position was much more recognizable that Sibling A’s, as he is the youngest child. In being the youngest child, his blended family did not impact his ordinal birth position. He spoke fondly of his familial position and did not mention any dissonance between his birth order position and perceived birth order position. He also shared that the associated traits of the youngest born child matched his personality. Perhaps his clear-cut birth order position made it easier for Sibling B to seemingly fit the characteristic of the younger child, influencing his perceived birth order position to match his ordinal birth order position.

Disability. For this study, the term disability encompassed physical disability caused by CP. It was important for Sibling A to clarify that the impact disability had on her life was attributed to external factors and not directed at her family members. She openly discussed how disabilities within her family constellation impacted her in various ways. She positively expressed that the experience of disabilities strengthened the bonds between her family members and made her more compassionate towards others, which is highlighted by her chosen career path in working with individuals with disabilities.

Sibling A spoke of frustrations she experienced due to Sibling B having CP; as a child, she was frustrated with all his medical appointments and attributed some of the frustration to him getting more attention. As an adult, her frustrations lie in the lack of support her brother receives from provincial support systems, as she often thinks social systems overlook him. Although her perceptions of futration have evolved over time, specific past experiences stemming from the medical factors of CP continue to impact Sibling A; she expressed that she experiences anxiety from previous experiences with her brother, such as choking, falls, and doctors.

> [Sibling A] There’s a few times that he was rushed to the hospital…one of the times…he fell on his glasses and had to get rushed to the hospital ‘cause he had a whole bunch of stiches on his…by his eye, but mostly up here on his forehead. And I remember rushing to the doctors back when we had the old hospital, and I could hear him screaming from down the hall. And that really frightened me from doctors because I thought, like,

> associated doctors with pain, so I became super anxious to go to the doctor, even as an adult.

Aside from anxiety, Sibling A expressed that some of her brother's medical emergencies continue to impact her lifestyle. Although she recognizes the reasoning behind her brother's episodes of choking, she cannot swallow pills.

> [Sibling A] I have a phobia of choking because whenever I was…his condition was CP, swallowing is a thing and he had a candy at a young age and he choked on it, and I was young watching it and he was turning purple and blue and…it was terrifying and… anyways, my dad saved him…but now I have a fear of I can't even swallow pills now.

Sibling A was acutely aware of how Sibling B's past medical situations continue to impact her adult life, with both recounts expressing the seriousness of the circumstances her brother experienced.

Sibling A noted that both she and Sibling B have received counselling and that factors of disability continue to impact both their mental health. Sibling B expressed that experiencing symptoms of CP has had a detrimental impact on his mental health.

> [Sibling B] Well I have depression too, so I get depressed a lot…I noticed it more when I was 13 or 14…Now that I am working, I'm a lot more positive I find. I'm still working on it; there's still days where I get depressed or whatever. But, for the most part, I work through it.

As noted in a previous theme, Sibling B stated that he experiences frustrations when requiring assistance from others and not being able to be entirely independent. From his illustrations, his disabilities impact him on various personal levels. However, he did not discuss the symptoms of CP; he focused on the impact CP had on his mental health.

Creative Synthesis

The collaborative experience of meaning-making with my co-researchers led to an expansion of my understanding of this phenomenon. My previous understanding barely grasped the complex variables of disabilities within a family constellation, and while my awareness has expanded, I still have a lot to discover.

Together we live and share a name,
My family and I.
We also share the same descriptor,
But perceive with different eyes.

Each of us have different roles,
And expectations from the rest,
And our descriptor – disabilities,
Can cause us undue stress.

What I see, as their mother,
Isn't always right.
And although it could be expected,
Our family rarely fights.

And I've now come to realize,
That I don't know what I know.
And to ask my kids more questions,

So that my understanding can grow.

This collaboration has brought awareness,
There has been a lot that I discerned.
And while I try to do my best,
There is always more to learn.

Chapter VI

DISCUSSION

The purpose of this study was to explore the effects of disabilities and birth order, both interpersonally and intrapersonally, while emphasizing sibling relationships. As this study was inclusive to both disabled and non-disabled participants, the findings may contribute to the discipline of psychology by dismantling ableism and providing a framework for more comprehensive therapeutic interventions. Conducting a formal inclusive heuristic study was vital in sharing the perspectives of all siblings impacted by disability. Seeking a socially-just platform to share all participants' lived experiences helped me shape the design of this study.

Exploring the direct impact of birth order generated contrasting responses from the participants. Although the participants in this study did not express in-depth knowledge of Adler's (1931) birth order theory, they had a general sense of birth order characteristics from social media exposure and personal readings. Sibling B's expressed lived experiences corroborated that his birth order and psychological birth order matched. This harmonization of subjective and objective experiences was supported by some of the previous birth order studies (Campbell et al., 1991; Kalkan (20080; Stewart et al., 2001). Sibling B expressed that his understanding of last-born traits suited his personality; it could be beneficial for a counsellor to design a therapeutic intervention with client birth order and other developmental factors in mind (Eckstein et al., 2010).

Sibling A's lived experiences highlighted previous criticisms of Adler's theory, which discounts present societal norms, such as the frequency of blended families, modern gender beliefs, and the prevalence of medical needs in contemporary society (Eckstein et al., 2010; Statistics Canada, 2003; Stewart, 2012). Because of the fluidity of Sibling A's ordinal birth order position, her psychological birth order position is a crucial therapeutic avenue to explore (Corey, 2013). Notably, psychological birth order yields personal clues to a client’s perceived familial structure (Campbell et al., 1991); such details could enhance individual or familial interventions. Previous researchers have found that the presence of disabilities in a family may impact how family members interact and modify individual roles and expectations; consequently, the effects of disability may impact psychological birth order (Bigby et al., 2014; Carlson & Robey, 2011; Eckstein et al., 2010). Focusing on psychological birth order, as opposed to ordinal birth order, could be more helpful and meaningful to clients provided that psychological birth order explores subjective experiences, provides environmental context, and discounts generalized birth order characteristics. As such, psychological birth order could be argued to hold more therapeutic merit than ordinal birth order. The ideals behind the theory of psychological birth order may help contend the criticisms of Adler’s birth order theory.

Disabilities affect all immediate family members and influence conventional family roles, such as undertaking medical and advocacy roles (Graff et al., 2012). These redefined roles evolve throughout different life phases, as highlighted in the lived experiences of this study’s participants. Sibling B noted an average amount of family roles, which evolved on par with his expectations as he grew up. However, throughout the interview with Sibling B, attaining his independence was a common theme. Sibling A expressed a lack of roles during childhood; she credited her mother for taking on many of the family roles herself. Their mother’s undertaking of numerous roles coincides with Whiting’s (2014) findings that parents of disabled children often take on many additional roles. However, Sibling A highlighted the development of new personal roles as she aged, such as becoming an emotional supporter and social advocate for her brother. The evolution of Sibling A’s roles and their descriptions support the findings of previous sibling-disability research (Atkin & Tozer, 2014; Burke et al., 2016; Graff et al., 2012). Furthermore, Sibling A expressed that she expects to live with her brother, off and on, throughout their lives, highlighting previous findings that non-disabled siblings regularly undertake guardianship roles later in life (Bigby et al., 2014).

Previously, researchers have found that disabilities impact sibling relationships in both a positive and negative manner; themes of responsibility, jealousy, optimism, and stress were noted (Graff et al., 2012; Roper et al., 2014; Stalker & Connors, 2004). Both co-researchers spoke to the stress their family experienced as a unit due to factors of disability. Notably, the siblings placed the blame for the stress on external factors (e.g., medical emergencies, lack of resources, and social systems) and addressed them under the theme of awareness; neither sibling blamed family members for their collective stress. Although Sibling A experienced jealously over time lost with her parents and brother while they attended his numerous medical appointments, she never placed blame on her brother. Interestingly, as an adult, her perception of his medical appointments has changed, and she now understands the value of the time she perceived as lost. It would be important to consider developmental growth when designing therapeutic interventions for families with disabilities, as sibling relationships appear to evolve throughout their lifetimes. Similar to the theme of family stress, the effects of disability negatively impacted the mental health of both participants. Sibling A discussed the medical anxieties she continued to experience as an adult, which were triggered by medical emergencies that she witnessed occurring to her brother as a child. Sibling B discussed his depression, which began when he was in junior high. Both co-researchers have previously sought therapy due to the effects of disability on their mental health and continue to work through their presenting symptoms.

Both siblings in this study emphasized the importance of their sibling relationship and expressed how much they valued one another. Themes of optimism and responsibility arose when the co-researchers' discussed their relationship with one another. Interestingly, the co-researchers noted that they perceive their sibling relationship to be better than most, which supports the findings of past sibling-disability studies (Roper et al., 2014; Rossetti & Hall, 2015). Sibling A also noted that having a sibling with disabilities has made her more compassionate towards others, and she often protected her brother from bullies during their school-aged years. Sibling A's experience of protecting her brother from harm coincides with the findings of Stalker and Connors (2004), who found that non-disabled siblings experience responsibility to protect their disabled siblings from harm. My sibling-disability study reinforces the significance of sibling relationships to one another, to their families, and to their collective societies.

Awareness was an unanticipated theme, in light of the literature review. Utilizing a heuristic methodology may have contributed to this finding, as heuristic data compiles personal and collective depictions, as opposed to analyzing and/or interpreting data. These findings suggest that disabilities present in a family structure influence how siblings perceive themselves, others, and the world. Interestingly, as their cultural location expanded to include public school, participant' awareness of familial disabilities increased. I found this epiphany to be a surprise, as I have always incorrectly assumed that my children are highly aware of the physical disabilities present in our family. As such, this unexpected theme contributed to a collaborative meaning-making opportunity for the co-researchers and me. Both participants also addressed a lack of awareness found in their community, be it friends, associates, the general public, or medical support systems. These findings may motivate others to become social justice allies, or at least attend to their own levels of awareness.

In the relevant literature, there has been limited research that includes the subjective experiences of the disabled siblings. However, it is essential to address that researchers may encounter ethical factors preventing them from working with vulnerable populations. Ethical concerns may include navigating informed consent, risks of coercion, confidentiality, and disclosure when working with individuals with cognitive disabilities (Marshall et al., 2012). In an attempt to undertake ethical concerns, cognitive disabilities were an exclusion factor in this study. A continued effort is required from future researchers to address ethical factors so that vulnerable populations may participate in more research studies. This inclusive study may help to close a noticeable research gap, as Sibling B was able to voice his unique lived experiences; my findings advocate that all sibling experiences are crucial to examine, as sibling relationships are reciprocal (Kramer, Hall, & Heller, 2013). Sibling B expressed that he wanted others to view him as an individual, not a medical condition; his voice will reach the readers of this study and portray his lived experiences apart from a medical diagnosis.

Chapter VII

CONCLUSION

This study presents a diverse portrayal of how disabilities and birth order impact sibling relationships. Unique to this study was the inclusion of a disabled participant, whose perspective provided a more holistic overview of sibling-relational dynamics. The purpose of this study was to provide a vast audience the opportunity to glimpse into the lived experiences of adult siblings contending disabilities. Promoting inclusive societies and fostering disability knowledge may dismantle some of the challenges these families face and realize additional supportive resources.

The use of heuristic methodology enhanced the acquisition of relevant and authentic knowledge of the phenomenon studied. Contrary to other qualitative research methods, heuristic inquiry promotes personal and collective depictions, thus ensuring the participants' lived experiences remained unaltered by researcher interpretation. All those involved in this study experienced collaborative meaning making, in light of personal cultural locations; this shared experience enhanced our social justice views and challenged our personal beliefs. The creative aspects of heuristic inquiry inspired the co-researchers and I to include personal narratives, highlighting portions of our lived experiences. Moustakas (1990) emphasized that a researcher must have direct experience with the phenomenon studied, and the structured process of heuristic inquiry compelled me to bracket myself into the study, as opposed to outside. This process of inwards bracketing was apparent throughout the six stages of inquiry and required numerous periods of indwelling and moments of unease as I challenged my beliefs and expanded my thoughts. Utilizing heuristic methodology prompted change in me, my co-researchers, and hopefully to our readers.

Limitations

As this research comprised a family case study, the within-family design may have contributed to some limitations. The siblings may have withheld or overlooked areas of their lived experiences, in fear of offending or harming their sibling relationship. However, I cannot assume that the participants disregarded negative experiences. This assumption advances ableism and negative thoughts surrounding disabilities, by proposing the idea that disability negatively impacts sibling relationships. This study may have also been limited in the data collected, as a third sibling was unable to participate due to unforeseen circumstances. Similarly, qualitative interviews may have caused the participants discomfort; one of the participants answered the interview questions very quickly, resulting in a much shorter interview than anticipated. Sample size may also contribute to limitations, as the results may be hard to generalize; the experiences of one family may differ substantially from other families in similar situations. However, the significance of the inclusivity of this study may encourage other researchers to follow suit and conduct further sibling-disability research.

As this was a qualitative study, it could be considered a limitation that I was unable to remove myself from the research project entirely. However, to ensure validity, I specifically chose heuristic inquiry as it enabled me to challenge my personal viewpoints and to be transparent throughout the research process. Moustakas' (1990) phases of heuristic inquiry attended to the necessary precautions I utilized to ensure I was bracketing myself within the study, instead of bracketing myself outside of the research. In accordance with Moustakas' guidelines, I attended to my own beliefs throughout every phase of the study, through the processes of indwelling and self-dialogue.

Future Research

Longitudinal studies may enhance themes of evolutions, as researchers could follow the evolutionary changes as experienced by siblings at various stages of their lives. Such studies could also eliminate any assumptions caused by developmental progress, altered memories, and present situations. If longitudinal studies are not possible, perhaps researchers could design similar future studies to have multiple interviews; this may contribute to participant trust and increase their trust levels.

As both the previous literature and the result of this study highlight, all members of a family are affected by disabilities (Graff et al., 202; Miller, Buys, & Woodbridge, 2012). To better design family counselling interventions, future studies could interview all family members (e.g., all siblings and parents) so that the various perspectives could be analyzed to contribute to a holistic overview of the familial constellation. While individual perspectives hold precedence, understanding the family system may enhance therapeutic success.

Future studies may also be designed quantitatively, to gather more data from siblings experiencing this phenomenon. Surveys could provide participant anonymity to discuss their sibling relationships without fear of consequence, and larger sample size could provide data from all Adler’s birth orders. A between-family study design could provide participants the opportunity to discuss sibling relationships without concerns related to confidentiality. To further compare data, a future study could be designed to incorporate both within-family and between-family participants (Damian & Roberts, 2015).

As society is progressing rapidly, future studies could also address the prevalence of blended families, cultural aspects, and evolving communication patterns (Stewart, 2012). Acknowledging changing familial structures may diminish potential criticisms of Adler’s (1931) birth order theory and challenge its validity amongst various cultures. In addition, to adress evolving communication patterns, it may prove useful to examine how technology impacts sibling relationships, as personal electronic devices may have an impact on how siblings communicate (Stewart, 2012).

Counselling Implications

The findings of this study hold therapeutic implications. However, it is crucial to acknowledge that modernizing Adler's birth order theory could enhance its relevancy, as it remains imperative for therapists to provide holistic and culturally appropriate therapy and to acknowledge familial structure. With the prevalence of blended families, changing cultural norms, and progressive societies, therapists must apply a culturally relevant lens to Adlerian theory. In attempting to be culturally sensitive, therapists could explore psychological birth order and the unique personal implications it may hold for clients.

Therapists may witness varying effects of birth order and disability during individual and family counselling. It could be beneficial for a therapist to explore a client's family-of-origin, especially as Adler emphasized the influential social system that each family creates (Carlson & Robey, 2011). Notably, sibling relationships warrant consideration in both individual and familial therapy, as sibling relationships are often the longest lasting relationships for most individuals (Meltzer & Kramer, 2015). Promoting positive sibling relationships, co-creating coping mechanisms, and exploring subjective experiences and relational connections may strengthen family bonds and enhance clients' identities (Mozdzierz, 2011; Riger & McGrail, 2013; Roper et al., 2014).

Results of this study may have both personal and social implications. Parents of children with disabilities may benefit from the findings of this study, as it may deepen their understanding of their family structure and broaden their awareness of the subjective experiences of their children. This study was not designed to be controversial or to disagree with parental styles, but to gently challenge parental beliefs and biases, by broadening parents' understanding of how their children experience disability and family roles. Furthermore, this study may enable individuals experiencing this phenomenon to understand their own lived experiences better. Although the participants of this study had strong perceptions of their family dynamics and their selves, participating in this study expanded their individual and familial comprehension. As the researcher, I also experienced a personal transformation as I challenged my beliefs and enhanced my awareness of the self, others, and the world. Notably, I now understand that I can only perceive a small fraction of the true lived experiences of my children and that I must openly communicate with them to better comprehend their identities, experiences, and relationships as we live with disability in our family.

Heuristic inquiry extends personal and social knowledge while respecting and endorsing the lived experiences of both researchers and participants. This study has explored the influences of disability and birth order on sibling-relational dynamics, and the results have generated essential points of interest for individual and familial counselling. The heuristic interviews enabled me to glean insight into the participant's unique cultural locations, and the discovered themes highlight nuances that may support positive sibling relationships and enhance understanding of families experiencing this phenomenon.

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Appendix A

Participant Consent Form

Adler's Birth Order Theory and Disability: Effects on Individuals' Unique Experiences

PARTICIPANT CONSENT FORM

Principal Researcher:	**Supervisor:**
Stephanie Dawson	Dr. Paul Jerry
1-902-439-8446	1-866-313-4373
Stephanie.dawson@gcap.ca	paulj@athabascau.ca

Purpose of the Study

You are invited to participate in a research study about your personal experiences with disabilities and birth order. I am welcoming you to participate in this study because a member of your family (i.e., you or a sibling) has a physical disability and you are over the age of 18. The purpose of this research project is to conduct a case study, with all consenting siblings, to explore how birth order and disabilities have impacted them and their sibling relationships.

My name is Stephanie Dawson, and I am conducting this study as a requirement to complete my Masters of Counselling, under the supervision of Dr. Paul Jerry.

Research Procedures

As a participant, I will ask you to take part in a semi-structured interview about your experiences with disabilities. Questions will explore your personal experiences with disabilities and birth order, as well as your sibling relationships and family experiences. The interview will take 60 to 90 minutes of your time. We will arrange the time and place for the interview that is most convenient for you. I will audio record our conversation. I will then transcribe our spoken words into a written document. A follow-up conversation can be arranged for you to review the interview transcript and to clarify/alter your comments; you will then have two weeks to add comments, make clarifications, or withdraw direct quotations.

Risks and Benefits

There are minimal risks associated with this study. Involvement in this study is entirely voluntary and you may decline to answer any questions or to share information that you are not comfortable sharing. You may withdraw from the study at any time during the data collection period by contacting Stephanie Dawson. I will then remove your data at your request. If you participate in this study, you will contribute valuable knowledge to sibling-disability research. As this study is inclusive to both disabled and non-disabled siblings, it could offer a broader perspective for future counselling practices.

Confidentiality

Your identity, personal information, and data will be protected from unauthorized access, use, and disclosure. While I will use a pseudonym for your data, your confidentiality may not extend to your siblings as they may know identifiable features (i.e., birth order, childhood experiences, disability). The research data and audio recordings will be kept on Stephanie Dawson's password-protected, home office computer. Paper data will be kept in a locked filing cabinet. After five years, all digital files will be deleted and paper files will be shredded, as per the Research Ethics Board's request.

Research Results

The final research report will be submitted to academic journals, published as my Master's thesis, and may be presented at academic conferences. In addition, the results will be presented at the final thesis defense at Athabasca University. The existence of the research will be listed in an abstract posted online at the Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available. Direct quotations will be attributed to your pseudonym only. Should you be interested, a copy of the final research report can be emailed to you.

If you have any questions about this study or require further information, please contact me or my supervisor Dr. Paul Jerry using the contact information above.

This study has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns regarding your treatment as a participant in this study, please contact the Office of Research Ethics at 1-800-788-9041, ext. 6718 or by e-mail to rebsec@athabascau.ca.

Thank you for your assistance in this project.

CONSENT:

I have read the Letter of Information regarding this research study, and all of my questions have been answered to my satisfaction. I will keep a copy of this letter for my records.

My signature below confirms that:

- I understand the expectations and requirements of my participation in the research;
- I understand the provisions around confidentiality and anonymity;
- I understand that my participation is voluntary and that I am free to withdraw at any time with no negative consequences;
- I am aware that I may contact Stephanie Dawson, Dr. Paul Jerry, or the Office of Research Ethics if I have any questions, concerns or complaints about the research procedures.

Name: ____

Date: ______________________________

Signature: ____

By initialing the statement(s) below,

______ I am granting permission for the researcher to use an audio recorder

______ I acknowledge that the researcher may use specific quotations of mine, without identifying me

_______ I would like to receive a copy of the results of this research study by email.

e-mail address:
____

If you are willing to have the researcher contact you at a later time by e-mail or telephone for a brief conversation to confirm that I have accurately understood your comments in the interview, please indicate so below. You will not be contacted more than six months after your interview.

________ Yes, I would be willing to be contacted.

Appendix B

Participant Recruitment Poster

PARTICIPANTS NEEDED FOR RESEARCH IN SIBLING-DISABILITY RESEARCH

We are looking for volunteers to take part in a study exploring the experience of birth order and disability on sibling relationships. This study will be using a case study design, with all participants being members of the same family.

As a participant in this study, you would be asked to participate individually, in a face-to-face semi-structured interview.

Your participation is **entirely voluntary** and would take up approximately 60-90 minutes of your time. By participating in this study, you will help us by providing valuable insight into sibling relational dynamics, which may benefit future individual and familial counselling interventions.

To learn more about this study, or to participate in this study, please contact:

Principal Investigator:

Stephanie Dawson

1-902-439-8446

Sdawson1@athabasca.edu

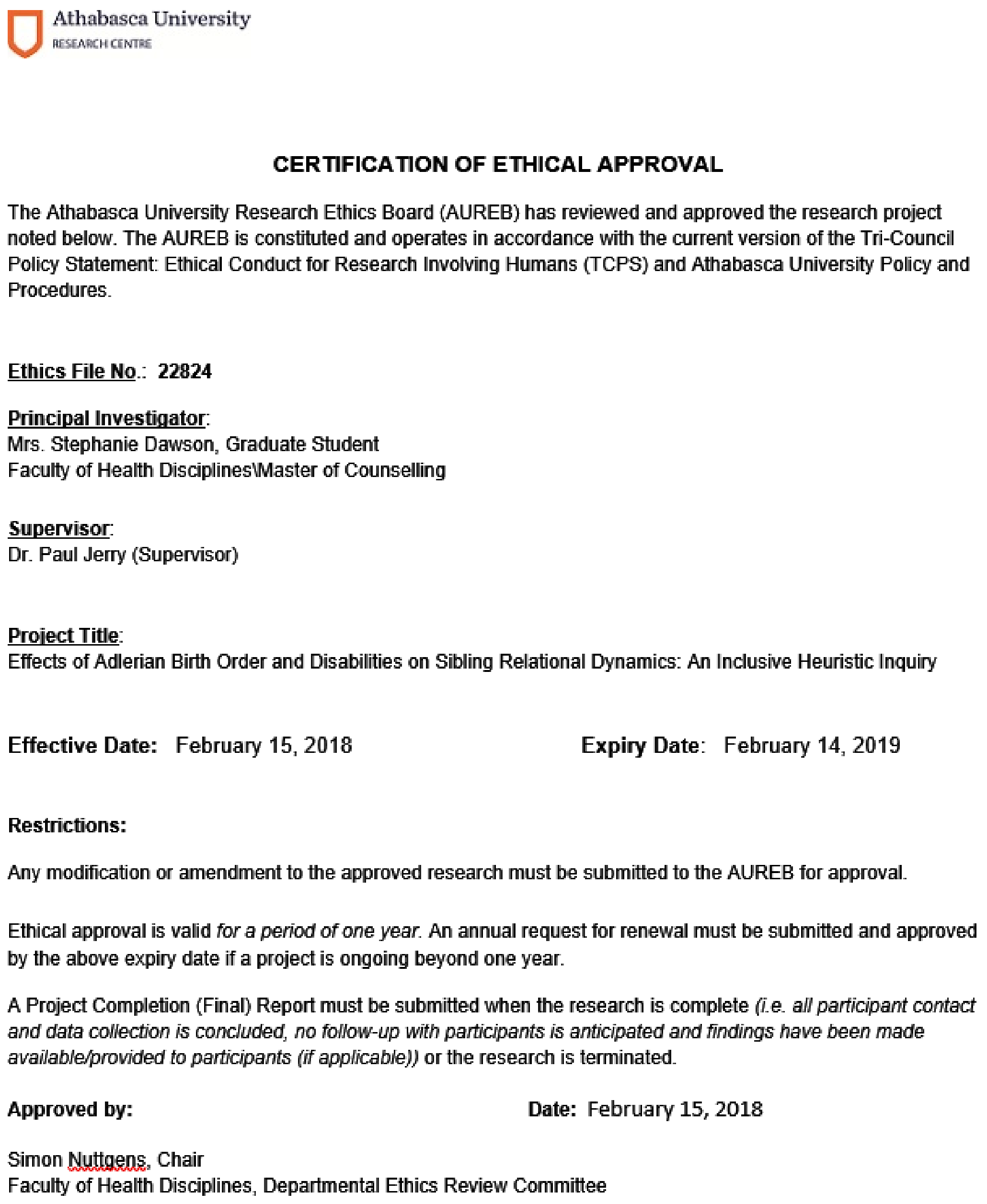
This study is supervised by Dr. Paul Jerry (1-866-313-4373 or paulj@athabasca.ca)

This study has been reviewed by the Athabasca University Research Ethics Board.

Athabasca University

Appendix C

Athabasca University Research Ethics Approval



Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) and Athabasca University Policy and Procedures.

Ethics File No.: 22824

Principal Investigator:
Mrs. Stephanie Dawson, Graduate Student
Faculty of Health Disciplines\Master of Counselling

Supervisor:
Dr. Paul Jerry (Supervisor)

Project Title:
Effects of Adlerian Birth Order and Disabilities on Sibling Relational Dynamics: An Inclusive Heuristic Inquiry

Effective Date: February 15, 2018 **Expiry Date**: February 14, 2019

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year.* An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date:** February 15, 2018

Simon Nuttgens, Chair
Faculty of Health Disciplines, Departmental Ethics Review Committee

Appendix D

Tri-Council Ethics Certificate

PANEL ON RESEARCH ETHICS

Navigating the ethics of human research

TCPS 2: CORE

Certificate of Completion

This document certifies that

Stephanie Dawson

has completed the Tri-Council Policy Statement:
Ethical Conduct for Research Involving Humans
Course on Research Ethics (TCPS 2: CORE)

Date of Issue: **11 October, 2017**

Appendix E

Interview Guide

Following the heuristic manner of a natural conversation, I will begin the interview with a prompt and then ask the open-ended questions. This rationale is to build rapport, promote comfort and alleviate any potential anxiety while gaining demographic information.

1) So, tell me a little bit about who you are (e.g., age, career, hobbies, family)
2) What is your birth order position?
    a. What was it like for you growing up in x position?
3) What was your relationship like with your parents as a child? As a teen? As an adult?
4) What were your family roles growing up? (e.g., chores, expectations, duties)
    a. What do your family roles look like now?
5) What is your relationship like with your siblings currently?
    a. How was it growing up?
6) What has been your most rewarding experience as a sibling?
7) What has been your most challenging experience as a sibling?
8) Can you tell me about your experiences with disabilities?
    a. What is your earliest recollection?
    b. What events stand out the most to you?
    c. What feelings and thoughts are associated with your experiences?
9) Have your experiences with disability changed from childhood to adulthood?
10) Is there anything that I have not asked you, that you would like to discuss regarding sibling relationships and disability?