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Clinician Perspectives of Adult High-Functioning Autism Support Groups' Use of Neurodiversity Concept

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MS, University of Phoenix, 2009

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Doctoral Study Submitted in Partial Fulfillment

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General Psychology: Research and Evaluation

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Abstract

Ample research has examined the impact of autism for children and families, but less has addressed the effects of this condition for adults. The literature indicates that adults on the autism spectrum suffer from depression and have a heightened risk of suicidal ideation because of their social skills deficits. Research also shows that individuals with high-functioning autism (HFA) can benefit from participating in support groups. In addition, research indicates that use of the term “neurodiversity” rather than other diagnostic labels encourages increased self-esteem to persons on the autism spectrum. This grounded theory study sought to understand the belief of clinicians with regard to the incorporation of the concept of neurodiversity in support groups for adults with HFA. The population for this study comprised clinicians who led support groups for adults with HFA. The specific foundational theories used were Tuckman’s stage model of group development and Salzer’s peer support model. Data consisted of 3 pilot study interviews and 12 additional interviews. Participant recruitment occurred through LinkedIn, and interviews took place online through the chat modality GoToMeeting. Interview data were entered into NVivo and a Van Kaam coding procedure was used to decipher recurring themes. Key results indicated that clinicians believe that the incorporation of the concept of neurodiversity can help adults with autism to build self-esteem and change the way individuals with HFA consider the condition, which in turn can assist them to build social skills, and relationships with their peers. Positive social change that may result from this study includes encouragement for increased use of the concept of neurodiversity as a tool in support groups for people with HFA, and stimulation of further study of this concept for decreasing bias against those with HFA.

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Dedication

This research is dedicated to all of those with developmental disabilities. May you have faith in yourselves. May you have a positive outlook. May you reach for your dreams, and aim high. Never let anyone tell you that you cannot because you can. Never second guess yourself.

Acknowledgments

I would like to thank my family for putting up with me during this crazy endeavor. They have sacrificed so much in the wake of TV dinners, a messy house, and a very frazzled mother and wife. I am so appreciative of the members of my dissertation committee, Dr. Horton, Dr. Rich, and Dr. Stiles-Smith. I am especially grateful for my feline friends who have stood by me, through thick and thin, purring and snuggling their little hearts out to help me through this process.

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Chapter 1: Introduction to the Study

Introduction

In this study, I gathered data from interviews concerning adults with high-functioning autism (HFA) with the clinicians who serve them. This chapter outlines the study’s background, purpose, problem statement, research question, objectives, and ultimate purpose. I highlight the societal expectations and assumptions. I also discuss how these assumptions and expectations could affect the self-esteem of persons with HFA. I used Tuckman’s (1965) stage model of group development and Salzer’s (2002) peer support model as the theoretical frameworks for this study, and I provide a rationale for why I used them in conjunction with my qualitative grounded theory research design.

Background

Persons with HFA often have a difficult time interacting with others. These social difficulties can thwart their ability to coexist easily with neurotypical people (Barneveld, Swaab, Fagel, van Engeland, & de Sonneville, 2014). These difficulties can also inhibit individuals with HFA from holding down a job, communicating their needs effectively, and obtaining needed social support (Barneveld et al., 2014). The autism prevalence rate amongst individuals in the United States is 1 in 68 (Centers for Disease Control and Prevention [CDC], 2014). Of those, 41% meet the criteria as high functioning (CDC, 2014; Rice, 2009).

In 1998, Singer started the neurodiversity movement (NDM), and first used the term in online chat rooms and blogs during the same year (Singer, 1998). The use of the neurodiversity concept can change the way persons on the autism spectrum feel about their diagnosis (Cascio, 2012; Jordan, & Caidwell-Harris, 2012). Neurodiversity is another view of differences in mental functionality. Although some individuals with autism do have significant intellectual disabilities, others are highly intelligent. However, these highly intelligent people often do not fit the mold that society deems appropriate (Barneveld et al., 2014). Society often views individuals with autism as disabled, and thus, subpar (Cascio, 2012). The concept of neurodiversity challenges that notion, and its proponents contend that people who are neurologically different need acknowledgment and support for their achievements just as persons who are neurotypical do.

One therapeutic measure for assisting persons with HFA is to help them develop social skills, which often includes the use of support groups (Seebohm et al., 2013). For this study, clinicians who work with individuals with HFA discussed their thoughts, experiences, and ideas regarding incorporating the concept of neurodiversity into support groups with the goal of improving the lives of persons with HFA. An opportunity exists for social change because persons participating in support groups can begin to build camaraderie. Social change may also occur because group facilitators may have the opportunity to introduce a new concept, and group participants may be introduced to a new frame for self-conceptualization. The whole of society could benefit from the neurodiversity framework as it may lessen popular misconceptions about people with autism and bring about acceptance.

A gap in the knowledge about neurodiversity exists and by conducting this research, social change in the field of psychology could occur. The notion of neurodiversity is a new concept with little research on the topic. As of March 2015, no studies existed that explored the implementation of the concept of neurodiversity in support groups for adults with HFA.

Problem Statement

Autism is a condition that ranges along a spectrum of severity (Reszka, Boyd, McBee, Hume, & Odom, 2014). According to the APA Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013), persons with autism exhibit qualitative impairment in social interactions and communication as well as different stereotypical behaviors such as hand flaping, echolalia, and poor eye contact . Many individuals with autism have limited functionality and struggle to live independently because of comorbid conditions such as cognitive impairments and sensory overstimulation (Beauchamp-Pryor, 2011).

However, a substantial subpopulation of persons with autism lead relatively independent adult lives with minimal support (Cascio, 2012). Individuals with HFA are persons with Autism Spectrum Disorder (ASD) who have minimal cognitive deficits and are self-reliant and independent. However, their deficits in social skills often isolate them from much of society (Barneveld et al., 2014).

Considerable effort by professionals has gone into helping persons with HFA function better in mainstream culture. Since its inception in 1998, the NDM has gained increasing acceptance amongst people with HFA and those interested in their wellbeing (Singer, 1998). The proponents of the NDM aim to promote social acceptance and understanding of people with HFA by people who are not autistic and who fall in the standard part of the neural spectrum (Cascio, 2012). Proponents of the NDM reject the disability and medical models that overemphasize disability and neglect the gifts and strengths of people with HFA (Jaarsma & Welin, 2012). Supporters of the NDM do not deny that conditions such as HFA need treatment, but take a holistic approach that also involves observing strengths, building assets, and increasing self-esteem. The neurodiversity concept promoted by the NDM encompasses various areas of neurological atypicality including dyslexia, autism, attention deficit/hyperactivity disorders, and other similar atypical characteristics (Kapp, Gillespie-Lynch, Sheman, & Hutman, 2013).

An essential part of the NDM provides persons with HFA an opportunity to congregate to develop a sense of positive identity, acquire skills, and identify resources (Jantz, 2011). The peer-support model in support groups led by licensed clinicians focuses on specific clinical deficits, especially social interactions and communication. Resolutions of specific clinical deficits are essential for people with HFA (Bishop-Fitzpatrick, Minshew, & Eack, 2013), and clinicians can use support groups to help persons with HFA learn how to make and keep friends (Cross & Hurley, 2014; Mackenzie, Watts, & Howe, 2012). The incorporation of these support groups by clinicians can even help these individuals meet romantic partners (Mackenzie & Watts, 2013).

Although the incorporation of support groups has been shown to be effective in improving clinical and social outcomes for other mental disorders (Repper & Carter, 2011; Seebohm et al., 2013), it remains unclear how well the support group model will work for an adult population that consists of persons with inherent difficulties with communication and social interaction. Limited research exists on this subject (Park, 2012; Zilber, 2014), and on how clinicians perceive the incorporation of the neurodiversity concept into support groups for adults with HFA (Cascio, 2012; Jantz, 2011). With my study, I sought to understand the experiences of clinicians who work with persons with HFA.

Purpose of the Study

The goal of this study was to help professionals in the field of autism determine how clinicians perceived the concept of neurodiversity in support groups for adults with HFA. I approached this research as the first step in making direct, positive change in the lives of adults with HFA. I sought to use these questions to determine the efficacy of implementing another support methodology for adults with HFA. One-step required to incorporate the neurodiversity concept into support groups for adults with HFA is to pinpoint how the neurodiversity concept relates to persons with HFA. Another step is to see how clinicians who work with persons on the autism spectrum perceive its implementation in peer support groups. These two factors served as necessary aims of this study.

Research Questions

Interview questions provided me a means of collecting data from study participants (Turner, 2010) who were clinicians working with adults with autism at the time of data collection. Typically, interviews elicit more data than surveys do. Because the interview questions should be pertinent to the main research questions (Brinkmann & Kvale, 2014), I conducted a pilot test of three participants in order to test the questions' validity and efficacy. Recruitment of these pilot participants was identical to the recruitment methods I used for the participants in the full study. Prior to the interview, I instructed participants to search the Internet for the term *neurodiversity* using a web browser of their choice to familiarize themselves with the topic. The following primary questions guided my study:

- How do participants perceive the neurodiversity concept?

- What are participants' impressions regarding the potential for social change in the lives of persons with HFA of implementing the neurodiversity concept into support groups?
- What are participants' thoughts regarding the implementation of the neurodiversity concept in support groups?

Theoretical and Conceptual Framework

A number of theories indicate the benefits of an individual joining a support group. These theories include Gersick's (1988) punctuated equilibrium model; Lewin's (1947) individual change process; and McGrath's (1991) time, interaction, and performance (TIP) theory. These theories outline the expectations, advantages, and disadvantages of group membership (Salzer, 2002; Tuckman, 1965). The two main theories that used for this study are Tuckman's stage model of group development and Salzer's peer support model. In Chapter 2 I provide a detailed discussion of my theoretical and conceptual framework but provide a brief overview below.

Conceptual Framework

Tuckman's stage model of group development. In 1965, Bruce Tuckman first hypothesized his stage model for group development. Tuckman's model organizes group development into the following stages: (a) forming, (b) storming, (c) norming, (d) performing, and (e) adjourning and transforming. Tuckman's central premise was that group development requires various phases for a group to flourish and be productive. Tuckman's theory was relevant to my study because it helped me theorize how a group comprised of adults with HFA may develop with the incorporation of the neurodiversity concept.

Salzer's peer support model. Salzer (2002) introduced a theoretical model that relates specifically to the development of peer-support groups. His peer-support model emphasizes the elements of social learning theory and works from the premise that peer-support groups help increase the self-improvement of participants by developing their skills and offering a sense of hope while helping to diminish fears. While neither of these theories incorporates the concept of neurodiversity, they both serve group facilitators as valuable tools and are well-suited for use in support groups for people with HFA.

Deficit/disability model. Significant cultural assumptions regarding persons with disabilities exist and can inhibit a person's acceptance within a community (Jantz, 2011). These cultural assumptions can thwart an individual's self-esteem and inhibit their willingness to interact with others in the community, leading to depression and isolation (Jurecic, 2007). Because autism is a spectrum disorder, each individual with a diagnosis of autism has a different level of functionality. The disability model suggests that everyone on the autism spectrum is disabled and, therefore, needs extra therapies (Jurecic, 2007). Peer-support model proponents, however, suggest that when individuals with similar challenges meet and share possible solutions, they may benefit from the gathering and not require a "one size fits all" therapeutic intervention (Salzer, 2002). If clinicians were to use Salzer's peer support model while incorporating the concept of neurodiversity in support groups for adults with HFA, the practice might provide more clarity regarding the effects of the deficit/disability model on the self-esteem of adults with HFA.

Medical model. Proponents of the medical model hold that individuals on the autism spectrum have an illness or a disease in need of curing (Kapp et al., 2013). This notion of illness or disease often leads parents and practitioners to try to formulate various treatment methods. Various “remedies” have originated from these ideas including (a) medications, (b) therapeutic diets, (c) therapeutic measures such as applied behavioral analysis (ABA), (d) speech therapy, and (e) social skills training (Cascio, 2012; Jantz, 2011). This theory is in tension with the main research questions of this study because proponents of the medical model discuss views that are different from the primary views of supporters of the NDM (Kapp et al., 2013). The medical model is a collection of views that proponents of the NDM want to dismiss.

Nature of the Study

Rationale for Research Design

According to Lee (2014), qualitative designs have many benefits. For this study, data collected consist of guided interviews with clinicians who worked, at the time of data collection, with adults who had HFA. Data collected from these interviews would lose meaning and context if I were to have used a quantitative method because it is difficult to quantify experiences, beliefs, and opinions. Thus, I determined that a qualitative research methodology was appropriate (C. Marshall & Rossman, 2011). Qualitative methodology offered me the flexibility inherent to semi-structured interviews (Burnard, Gill, Stewart, Treasure, & Chadwick, 2008; Patton, 2002). Further, I used grounded theory research design to guide the study and used a pilot study to assist with the construction of the interview process.

I chose a grounded theory design because it allows researchers to focus on abstract notions concerning the circumstances that study participants have already experienced (Charmaz, 2008). For this study, that abstract notion was neurodiversity, and the experiences were those of clinician participants who had led support groups for people with HFA.

I sought to understand clinicians' perceptions regarding the implementation of the notion of neurodiversity in support groups for persons with HFA. I worked to ascertain the attitudes and beliefs of clinicians who had experience working with persons with HFA regarding the NDM and participation in support groups. I analyzed collected data while using grounded theory research methodology (Charmaz, 2008). Both positive and negative perceptions of clinicians were important to this research, and I have worked to provided exhaustive information regarding the details of the study in an effort to increase transferability. By providing rich descriptions, I hope to provide the readers an opportunity to potentially transfer my findings to other contexts (Houghton, Casey, Shaw, & Murphy, 2013).

Definitions

Clinician: Educated persons in the field of psychotherapy and who actively provide clinical services (Mackenzie & Watts, 2011). These individuals are highly trained to diagnose and treat their patients. Clinicians, for the purpose of this study, were persons who work with individuals with HFA.

High-Functioning Autism: Many people with HFA have above average IQs and have a number of talents to share with the whole of society (Ankenman, Elgin, Sullivan, Vincent, & Bernier, 2014; Jaarsma & Welin 2012; Wouters & Spek, 2011). For the purpose of this study, persons defined as having HFA have level 1 functionality as defined by APA Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5, 2013).

Neurotypical: A term initially devised by the autism community to describe those who are not on the autism spectrum (Cashin & Sci, 2006). This term later evolved to include anyone without atypical neurology, although used both ways. For the purposes of this study, the term neurotypical denotes persons not on the autism spectrum.

Peer Support Groups: According to research, support groups used in therapy with individuals with ASD are therapeutic (Cascio, 2012; Jantz, 2011; Seebohm et al., 2013). A classic support group format is one where groups of people gather and share thoughts and stories, and offer support to one another. For the purpose of this study, a support group directly correlates to the gathering of individuals with similar comorbid complexities, such as autism, to support and discuss issues at hand (Salzer, 2002).

Assumptions

I assumed that the research participants answered interview questions truthfully (Simon, 2011) and that potential study participants honestly reported their degree, license status, and experiences (Leedy & Ormrod, 2010). I also assumed that participants could follow directions and log into the interview modality GoToMeeting successfully and that the GoToMeeting chat modality would exist at the time of the interview. The assumption followed that participants would log in to the chat room for an interview at a previously arranged date and time. I assumed that neither party would lose power or have any technical difficulties that could hinder my ability to conduct the necessary interviews. In any of these instances, the study would be difficult to complete because I relied on the data collected from the interviews (Leedy & Ormrod, 2010).

Delimitations

Although neurodiversity encompasses many areas of neurological atypicality, I chose to focus on adults with HFA because of limited data on this population. I also elected to interview clinicians who worked with this population because of their expertise and chose to limit the scope to clinicians in the United States who had LinkedIn accounts. These delimitations necessarily limited the scope of clinicians that I could reach.

Scope

The sample included licensed clinicians in the fields of psychology, social work, or marriage and family therapy. I limited the sample to those with two-years of experience working with individuals with HFA, which meant that the clinician would no longer be in an internship and that he or she would have had experience in the field. The sample included clinicians from across the United States and consisted of a convenience sample collected from LinkedIn, a professional networking site on the Internet.

Limitations

Limitations of a study are things that I cannot control (Janssans & Kraft, 2012). Historical effects were a considerable limitation to my study because attitudes and beliefs change with societal growth and progression regarding the treatment of persons with disabilities. The notion of neurodiversity as a concept has the potential to grow as attitudes and beliefs change (Cascio, 2012). The convenience sampling procedure I used to limit the scope of potential study participants may have also limited the sample's demographic diversity.

Limitations related to this study's regarding design and/or methodology include the fact that I could not foresee circumstances relating to the truthfulness of the participants' answers to interview questions, nor could I predict technical difficulties. Potential biases were that I have two children on the autism spectrum. However, as Moustakas (1994) notes, researchers can set aside personal bias and reach a suitable level of objectivity. For this study, I sought to maintain objectivity and minimize bias by focusing on adults, and not children, with HFA. As an additional precaution, I presented the interview questions in the same order using the exact same wording to all participants and refrained from interjecting comments of any type that might have been misconstrued by a participant. I also worked to minimize facial expressions, and at no time did I discuss my sons or my personal connection with autism.

Significance of the Study

A significant amount of research exists on neurodiversity and individuals with ASD (Jaarsma & Welin, 2012; Kapp et al., 2013; Mackenzie, 2011; Mackenzie & Watts, 2011). However, the majority of this research focuses on children (Cascio, 2012; Magnuson, & Constantino, 2011; Roberts, Beadle Brown, & Youell, 2011; Schreiber, 2011). At the time of data collection, various neurodiversity studies focused on adults, but these studies did not focus solely on adults with HFA (Jaarsma & Welin, 2012; Kapp et al., 2013; Mackenzie, 2011; Mackenzie & Watts, 2011). This study enhances the knowledge base by focusing on adults and may increase the quality of life and independence for persons with HFA.

This research could influence the HFA community by providing information that could elucidate both positive and negative aspects of the NDM. Findings from this research could potentially advance the well-being of persons with HFA by offering clinicians additional tools to add to their therapeutic toolkits. The findings of my study provide insights for tailoring groups that utilize the use of neurodiversity for those with HFA, thereby impacting their social well-being

Often, persons with HFA are marginalized and isolated by their condition and by the medical model that has indoctrinated them to believe they are sick (Connor, 2013). If the HFA community can benefit from support groups, individuals with HFA may redefine their persona and understand their unique strengths and gifts (Connor, 2013).

Summary

In summary, persons with HFA have been isolated because of their atypical nature and lack of social skills (Beauchamp-Pryor, 2011). Many individuals in society have grouped together all people with ASD without regard to their level of functionality (Cascio, 2012). While some persons with ASD do have significant impairments, others on the autism spectrum have few. Many of these individuals surpass those persons not on the autism spectrum in various ways, such as academically (Pelphrey, Shultz, Hudac, & Vander Wyk, 2011; Roberts et al., 2011). While people with HFA have a multitude of such strengths, deficits in communication and social aspects often hamper their abilities interact with others (Tebartz, Pick, Biscaldi, Fangmeier, & Riedel, 2013). Because of these deficits, many individuals with ASD lack emotional and social support, and neurotypical individuals may deem them strange or socially awkward (Barneveld et al., 2014).

Professionals have used support groups as a popular modality of therapy to help persons with varying amounts of social and mental difficulties (Jantz, 2011). By incorporating the concept of neurodiversity into support groups for people with HFA, a possibility exists that people on the autism spectrum can benefit from the new mindset that neurodiversity has to offer. An opportunity for social change exists because the neurodiversity concept can help increase self-esteem and enhance social engagement. My research plays an important part in this first step of implementation because it gathered information regarding the perspectives of clinicians regarding the use of the neurodiversity concept in their work with people with HFA.

Chapter 2: Literature Review

Introduction

This chapter is a review of literature that encompasses central themes and topics pertinent to the study. I have identified several themes related to HFA and have focused specifically on the personal, individual effects of HFA. I also have focused on the concept of neurodiversity, and have review literature regarding the concept’s use in support groups, and its potential for helping thwart depression and build self-esteem. In what follows, I discuss pertinent articles from peer-reviewed journals, and I mark their research limitations to identify the gap in the literature that this study addresses.

The problem that I sought to address in my literature review was that adults with HFA can exhibit impairments in social interactions and communication (Reszka et al., 2014). These impairments can lead to difficulty in everyday social interactions, which are imperative for independent living (Cascio, 2012). As of March 2015, little research focused on the incorporation of the concept of neurodiversity in support groups for adults with HFA. I thus intended to fill the gap of knowledge with this study. The primary goal of this research was to collect perspectives from clinicians regarding the use of the neurodiversity in support groups for adults with HFA.

Numerous peer-reviewed publications address various aspects of autism (Anderson, 2010; Barneveld et al.; 2014; Cascio, 2012; Tebartz et al., 2013). In 2014, the autism incidence rate in the United States was 1 in 68 (CDC, 2014). Of those, 41% received the classification as high functioning (CDC, 2014; Rice, 2009). This research was a step in potential social change for persons with ASD.

Several researchers have focused on varying aspects autism in children on the spectrum; however, fewer researchers have focused on autism in adults. As the rate of autism steadily increases (Kopetz & Endowed, 2012), professionals need to consider further implications of an autism diagnosis for adults on the autism spectrum. My research focused on adults on the autism spectrum and identified a new modality for support that includes the use of the concept of neurodiversity in support groups.

Literature Search Strategy

I retrieved literature for my study using Google Scholar, Walden University's research library, Academic Search Primer, PsycInfo, Infoseek, EBSCOhost, and Proquest databases. Specific refined search parameters included only peer-reviewed articles and articles published within 5-years at the time of the search. Search terms that I identified as significant to my research included, but were not limited to the following: *Tuckman's stages of group development, Salzer's peer support model, neurodiversity, autism and neurodiversity, ethnography and autism, autonomy and autism, autism, Asperger's, adults and autism, adults and high-functioning autism, self-esteem and autism, suicide rates and autism, autism and behavioral challenges, autism and support groups, medical model,* and *disability model.* The majority of the literature I gathered came from peer-reviewed journals, but I also conduct brief Internet searches for neurodiversity-based organizations, and review academic textbooks for methodology I determined that these other means of data retrieval were necessary because of the limitation of current research and the gap in knowledge that existed at the time of my review regarding the incorporation of neurodiversity into support groups for adults with HFA.

Theoretical Foundation

In this section, I discuss the theories on the use of support groups that I used as the theoretical foundation for my study, focusing specifically on Tuckman's (1965) stage model of group development, and Salzer's (2002) peer support model.

Tuckman's Stage Model of Group Development

In 1965, Bruce Tuckman first hypothesized his stage model of group development in *Psychological Bulletin*. Tuckman's central premise was that various phases of group development were needed for a group to flourish and be productive (Tuckman, 1965). Tuckman observed a number of groups while working at the Naval Medical Research Institute as a research psychologist studying small group behavior. He also conducted a thorough literature review on group development comprising more than 100 articles.

The *forming stage* is the first stage of Tuckman's model. Tuckman noted that in this phase, people are working toward acceptability with others, and they are taking mental notes on one another in an attempt to avoid controversy and rifts within the group. In this stage, group participants are motivated to get to know one another in an effort to make friends. People often work more independently in an attempt to avoid conflict (Tuckman, 1965). In relation to a social group for those with HFA, Tuckman's model indicates that group participants would watch their behavior and try to make friends at this stage. As other researchers have noted, making friends would be a positive goal for persons on the autism spectrum because many individuals on the spectrum need to work on developing social skills (White, Koenig, & Scahill, 2010). The forming stage would be ideal in helping participants with HFA learn social cues and begin to develop camaraderie (Hellendoorn, De Jaegher, & Brincker, 2014).

The next phase in Tuckman’s model of group development is called the *storming phase*. During this period, participants of the group begin to brainstorm new ideas and to suggest how to solve problems. Tuckman distinguishes between “productive” and “negative” communication in this stage. Productive communication means that group participants actively engage in conversation that is productive to the task, as opposed to negative communication that tears down an individual’s character. Negative communication with others can cause detrimental harm to the group as a whole and can thwart any positive interaction (Tuckman, 1965). In the context of support groups for persons with HFA, a trained counselor can be effective at this stage in helping with intragroup communication. In the storming phase, group members discuss problems associated with HFA such as issues within the community and the struggles they face when trying to conduct their everyday lives. The concept of neurodiversity could take center stage as the group tries to use it to problem-solve and enhance their self-esteem.

The next stage in Tuckman’s stages of group development is called the *norming phase.* In this phase, group participants decide on a common goal, and all of the participants in the group take ownership of the task (Tuckman, 1965). In the context of in support groups for individuals with HFA, the group leader would use the norming phase to guide the group as participants collectively work to devise a plan for incorporating neurodiversity in their everyday lives.

The next in Tuckman’s model is the *performing stage*. In this stage, Tuckman (1965) purported that people in a group can work independently to complete various tasks. Support groups for those on the autism spectrum could benefit from reaching this stage of group development because this stage could help persons on the autism spectrum practice and modify various social skill techniques. Working with a group could help fine-tune social skills (Gantman, Kapp, Orenski, & Laugeson, 2012). The outcome and progress of the group could potentially boost self-esteem for the members.

In 1977, Tuckman added to the stages of group development by implementing the *adjourning and transforming stage* (Tuckman & Jensen, 1977). This phase focuses on the disintegration of the group after the task reaches completion. In this phase, group members with HFA could maintain friendships formed during the group even after the group disintegrates. For people on the autism spectrum, these friendships could provide another form of support.

Salzer's Peer Support Model

Salzer's peer support model stems from Festinger's social comparison theory (Festinger, 1954). The initial premise of this model is that people naturally seek out interactions with other individuals who have had similar life experiences. This tendency is especially true in instances of stress (Festinger, 1954). Salzer noted that peer-support groups helped increase self-improvement by facilitating skill development, increasing a sense of hope, and diminishing fears (Salzer, 2002). Salzer's noted five psychosocial processes in the peer support model: (a) social support, (b) experiential knowledge, (c) social learning, (d) social comparison, and (e) helper-therapy principle. Social support is an important part of a peer support system (Salzer, 2002). In support groups, participants build positive relationships with one another and develop shared trust and concern, emotional support, companionship, and guidance.

Individuals have unique experiences from living in a society as a person with a particular specialized issue. Because these experiences are particular to the support group, shared personal insight can contribute to others members' abilities to solve problems. Participants can enhance their quality of life (Salzer & Shear, 2002) by sharing experiential knowledge.

Social learning refers to the notion that people in similar situations become credible role models for others in the same situation. The idea follows that people in similar situations who are looking to develop beneficial coping skills can look at the mentor's success as a model to follow. By watching the success of another, there can be a higher likelihood of developing positive behavior changes (Salzer & Shear, 2002).

Social comparison relates to the notion that people are comfortable interacting with others in similar circumstances. Individuals can learn what coping techniques work best by comparing themselves to others. In addition, individuals gain optimism when working with others who have overcome similar obstacles (Festinger, 1954).

Persons who participate in peer support groups can benefit by participating as a newcomer, and later as a seasoned veteran (Riessman, 1965). The helper-therapy principle has four benefits to individuals providing support (Skovholt, 1974). First, by mentoring others and by becoming a *helper*, the person can gain confidence in their interpersonal skills directly by mentoring someone else. Second, the individual can learn to share their learning about equality. Third, the helper can also learn more about his or her personal struggles by learning about issues others have had. Fourth, helpers can also gain social approval and develop self-confidence (Salzer, 2002).

Salzer's peer support model relates significantly to this research. This model demonstrates how individuals within support groups may interact with one another. More specifically, this model relates to how adults with HFA may interact with each other in support groups that include the concept of neurodiversity.

Conceptual Framework

Researchers of autism have used different models to reinforce their studies. The principle models used are the disease and the disability models. A division of purpose about autism research and advocacy exists (Jurecic, 2007). Some people focus on the disease model, seek to eliminate ASD, and cure people of the disease. Others concentrate on the disability model to manage behaviors and symptomatic problems that can adversely affect an individual's life.

Disability Model

Regarding persons on the autism spectrum, the disability model is difficult because autism is a spectrum *disorder* (DSM-5, 2013). The disability model suggests that everyone on the autism spectrum is disabled; thus, these individuals need extra therapies (Beauchamp-Pryor, 2011). The disability model does not take into account that people, both high functioning and low functioning, exist with an autism diagnosis. Some individuals have severe cognitive and communicative limitations while others do not. Children with the ASD diagnosis carry with them a set of comorbid functionality issues, which places them in the disability model. According to Jurecic (2007), the disability model thwarts self-esteem, personal progression, and the ambition to excel in academic and professional pursuits.

Medical Model

The deficit/disability model differs from the medical model because the medical model focuses on illnesses, diseases, or cures, rather than the notion that a person has a deficit or disability and is in need of assistance (Cascio, 2012; Jantz, 2011; Jurecic, 2007; Kapp et al., 2013). A number of belief systems surround the causality of ASD (Constantino et al., 2013; Rutter, 2013). Numerous organizations perceive autism spectrum disorder as a medical condition. Defeat Autism Now (DAN) is one such organization. DAN mostly uses the disease stance on autism and touts that effects of various treatment modals may cure the condition. DAN refutes the disability model with the notion that it is too pessimistic and focuses on specialized diets along with other treatment methods such as speech therapy. The founders of DAN founded the Autism Research Institute (ARI, 2008), and similar to DAN; they tout the disease stance on autism. ARI is adamant about various biomedical methods of treating autism, which include (a) Cassin and gluten free diets, and, (b) chelation methods for removing metal toxins (Mari-Bauset, Mari-Sanchis, Llopis-Gonzalez, & Morales-Suarez, 2014). Autism Speaks (2011) focuses on the disease model and, similar to DAN, advocates that autism can be treatable (E. Savarese, 2010).

Societal Implications Stemming from Conceptual Models

A number of belief systems surround various aspects of society. These belief systems primarily build on conceptual models that stem from a number of sources, which include cultural factors such as religion and stereotypes (Beauchamp-Pryor, 2011). Society often forms opinions of people based on these factors, particularly those with ASD.

Emphasis on disability. Much focus is on the idea that all persons on the autism spectrum are disabled. Many people with autism are high functioning. Many individuals with ASD can care for themselves, get a job, marry, and have children (Cascio, 2012; Jaarsma & Welin, 2012; Kapp et al., 2013).

Educational system ideology. Society has deemed those who may be different from individuals who are neurotypical as disabled, thus less able to do the usual things persons who are neurotypical do (Chamberlain, Kasari, & Rotheram-Fuller, 2007). Much of this over-emphasis stems from the educational system (Kayama, 2010). Many schools have a traditional model of educating children (McKeon, Alpern, & Zager, 2013). This model consists of children sitting in a classroom setting with multiple subjects taught every day. If a child does not fit this learning model, he or she is considered disabled and in need of special education and perhaps a number of therapeutic interventions (Duncan & Klinger, 2010). This practice does not focus on an individual's intelligence, nor do the policy makers that manage the educational system strive to devise other ways of education (Kayama, 2010).

According to a few accounts (Karayazi, Evans, & Filer, 2014; Lin, 2014), persons with autism spectrum disorder have a difficult time fitting in with individuals who are not on the autism spectrum. Many other individuals, particularly younger people, often lack the emotional intelligence to accept someone who is different them themselves (Roberts et al., 2011; Van Roekel, Scholte, & Didden, 2010). Many people on the autism spectrum with HFA attend classes alongside their peers and face the challenge to exist just as students who are neurotypical do (Roberts et al., 2011). Unfortunately, many persons who are high functioning are not as widely accepted as individuals who are neurotypical (Van Roekel et al., 2010).

Society and the educational system have streamlined the educational process into a mold that many children do not exemplify. For persons who have difficulty conforming to the standardized learning model, special education has become the most widely used method for delivering specific learning alternatives for those who do not conform to mainstream learning (Kayama, 2010; Mackenzie et al., 2012). This thought process often leads individuals to prejudice, bullying from peers, depression, and low self-esteem (Magnuson & Constantino, 2011).

Vocational setting. Once children grow up, many enter day programs that focus on training and teaching persons with disabilities (Bennett & Dukes, 2013; Burgess, & Cimera, 2014). The focus of these programs is the hope that these adolescents find meaningful jobs in the community (Lorenz & Heinitz, 2014). Job placement depends on the needs, interests, and functionality of the individual (Hillier et al., 2007). Some researchers focused on the vocational outlook for persons with HFA, which includes training programs for persons with ASD (Bennett, Ramasamy, & Honsberger, 2013).

Taylor and Seltzer (2012) developed an indexing system that encompasses both educational and vocational outcomes for persons with ASD. Three-hundred fifty adults took part in this study, which encompassed a 12-year period. Data collection occurred six times over 12 years. The results showed that individuals with mild deficits were not only able to work and perform relevant job duties, but their employers valued their contributions to the various businesses. These results are significant because they illustrate that individuals with ASD can indeed be productive in society, and they have the potential to earn a living for themselves (Grandin, 2011; Taylor & Seltzer, 2012).

Low self-esteem. Society emphasizes the need for a particular person to become involved within the community and to mesh in with society. When neurologically atypical people attempt to integrate with people who are neurotypical, they often face rejection. Results of this rejection include depression and low self-esteem (Magnuson & Constantino, 2011). Self-esteem issues can become significant for persons with ASD.

Suicide and depression rates. An increase in suicide and depression rates from previous research exists among persons with autism (Mazurek, 2014). Mazurek stated that individuals on the autism spectrum have trouble making friends. This difficulty to make friends can lead to suicide and depression. Individuals with ASD also have an increased difficulty functioning within the community that can lead to decreased likability and can lead to depression and suicide (Mazurek, 2014). Takara and Kondo (2014) reported that ASD can increase the chances an individual will develop depression and suicidal ideation. It is beneficial to find ways to make life better for persons who are on the autism spectrum. In so doing, persons in the field can make significant social change.

Ozinci, Kahn, and Antar (2012) conducted a single case study of a 15-year-old boy who had a diagnosis of ASD. Ozinci et al. noted that although the boy was high functioning, he still presented with some social deficits. The boy was fully aware of his deficits and wanted to fit into society, but could not because of the limitations imposed by autism. He then went into a deep depression wherein his maladaptive behaviors increased. Behaviors, as well as the natural consequences stemming from maladaptive behaviors, do have a significant impact on a person’s quality of life (Couser, 2011; Totsika, Felce, Kerr, & Hastings, 2010).

Mazurek (2014) reported that adults on the autism spectrum do have significant impairments regarding making friends and with depression. Participants in this study included 108 adults on the autism spectrum. Participants completed a questionnaire, which measured the autism symptoms of loneliness, depression, anxiety, life satisfaction, and self-esteem. Mazurek found that adults with ASD, who exhibited loneliness also exhibited depression, heightened rates of anxiety, low self-esteem, and low overall life satisfaction. Individuals who had decreased loneliness exhibited decreased amounts of depression and anxiety; however, decreased loneliness had no effect on an individual's overall life satisfaction. This study is significant because it shows that adults with ASD who have friends are less likely to have loneliness, depression, or anxiety (Mazurek, 2014).

Richa, Fahed, Khoury, and Mishara (2014) found that persons with HFA are more at risk for comorbid symptomology than are persons with no diagnosis of autism. These comorbidities, such as depression and anxiety, contribute to the suicide risk of individuals with HFA (Maloret & Sumner, 2014; Roncaglia, 2014; Shaker-Naeeni, Govender, & Chowdhury, 2014). Richa et al. also noted that sexual assaults, as well as changes in routine, are precipitating factors to a heightened risk for comorbid symptomology. Richa et al. reported that because of the communication difficulties many persons with ASD experience, family members, friends, and practitioners have difficulty determining their needs. Results indicated that by having friends, rates of self-esteem increased. Furthermore, higher rates of established friendships resulted in lower levels of anxiety, and depression. Richa et al.'s research is significant because no other studies examined aspects of social and emotional well-being in adults with ASD.

Spencer et al. (2011) conducted a single case study in which a man, who never received a prior autism diagnosis, required admission to a psychiatric facility after attempting suicide. At the facility, professionals diagnosed the man with autism. This man had a wife and had recently lost his job following an inappropriate outburst. The fact that this man was married and had a job is significant because he received a diagnosis of ASD. This illistrates one example of how a person with HFA was still able to reach some of life's milestones, such as marriage and employment.

Magnuson and Constantino (2011) identified how persons with HFA are increasingly self-aware, which is at a higher rate than the rate is for persons classified as low functioning. Because of this increased awareness, many people with ASD acknowledge that they do not fit in with their peers. Often persons with ASD face teasing and bulling because of unknowledgeable or misunderstanding peers (Gardner et al., 2014). Many on the autism spectrum go into a depressive state because of their inability to socialize appropriately (Maloret & Sumner, 2014). Human beings are social animals by nature. Persons on the autism spectrum want to socialize appropriately with others, they do not know how and they often misunderstand socially based cues such as facial expressions and small verbalized clues regarding what is acceptable behavior (Pelphrey et al., 2011).

Literature Review Related to Key Variables and Concepts

Described in this literature review is ASD as described in the APA's Diagnostic Manual (DSM-5, 2013). Further discussed is how the proposed research and its findings relate to persons with HFA. I explored the literature regarding various challenges individuals diagnosed with ASD might face in addition to the conventional modalities of treatment and support. This review presents the concept of neurodiversity and its history, which includes proponents of and opposing rationale. In addition, presented are theoretical models and the way they relate to this proposed study. This review contains various societal implications as well as suicide and depression research pertaining to persons on the autism spectrum (Ozinci et al., 2012). Adverse social ramifications because of the behavior of people with ASD and the effects of their behaviors are important because the concept solidifies the need for intervention and support. A discussion examining support group based research along with the theoretical framework supporting the use of support groups occurs.

The remainder of this review comprises a number of topics and relevant sub-topics relating to variable concepts. The structure of the analysis is complex. A discussion regarding the neurodiversity movement along with the definition and purpose occurs. A discussion of the history of the movement as well as what the neurodiversity movement rejects as far as conceptuality including strengths will commence. Next, I will discuss two theoretical models: the disability model and the medical model. I will examine societal implications that stem from these theoretical models, and society's emphasis on disability and how persons on the autism spectrum find it difficult to fit society's model. Findings from various studies on support groups will include general support groups, studies that encompass adults with HFA, and studies that include support groups that use neurodiversity as a premise. A discussion consisting of various theoretical framework modalities, such as Tuckman's (1965) stage model for group development and Salzer's (2002) peer support model shall occur. Diagnostic criteria, as outlined in the DSM-5, shall occur as well as the maladaptive behaviors associated with the condition.

Autism Spectrum Disorder

El-Ghoroury (2012) collected narratives from parents of adults with ASD and analyzed them to gain a picture of the ongoing struggles of parents. From these narratives, a few strengths stood out for the adult children on the autism spectrum. One parent reported that her child became a computer engineer at the age of 13 and stated that her child was the youngest in the country to have achieved that. Another parent reported that his child was a genius at chess, was an origami expert, and could juggle up to seven objects. Another parent said that his child was practically an expert in the earth sciences. These parents said they did not want others to notice their child’s disability, but they wanted people to recognize abilities.

Persons with ASD may have a number of deficits, but they also have many other remarkable qualities that often seem overlooked because of their disability (Sarvasee, 2010b). Temple Grandin (2012) has a number of talents, and she is on the autism spectrum. She has written numerous books, given many talks, and has earned her PhD. This is significant because it illuminates persons on the autism spectrum who still achieved many notable things, thus showing that not all persons on the autism spectrum will follow a sub-par life as purported by medical and disability model proponents.

Diagnostic criteria. According to the DSM-5 (2013), the diagnostic criteria for ASD are specific. Diagnosis based on a number of issues includes an individual’s ability to communicate efficiently and the use of repetitive behaviors. The DSM-5 defined three levels of severity. Persons at level 3 require substantial support. Persons on level 2 require significant support, and individuals on level 1 require support (DSM-5, 2013).

Rate of diagnosis. Kopetz and Endowed (2012) reported that the rates of diagnosis of autism spectrum disorder have been increasing; however, a number of opinions exist regarding this occurrence. Some researchers claimed that the rate of autism as a disorder is increasing (Kopetz & Endowed, 2012). Other researchers reported that many on the spectrum received the wrong diagnosis and held the label of intellectual disability or are otherwise misdiagnosed (Saemundensen et al., 2010). Another hypothesis is that many persons go for years without a proper diagnosis because of a person's high level of functionality (Chown & Beardon, 2014; Spencer et al., 2011).

Impairments. The DSM-5 (2013) listed two primary impairments diagnostic criteria: social communication and repetitive patterns of behavior. In both of these instances, a number of other issues also influenced an individual such as suffering from sensory overload, exhibiting self-stimulatory behaviors (stimming), and missing social context cues (Banda, Griffin-Shirley, Okungu, Ogot, & Meeks, 2014; Casico, 2012). Pragmatics is an area where many persons with ASD have difficulty. Further discussion regarding communication difficulties follows in the next section (Sivapalan & Aitchison, 2014).

Communication. According to the DSM-5 (2013), a person must exhibit autistic-like symptoms early in his or her developmental stage to qualify for a diagnosis of ASD. These symptoms include impairments in necessary areas of interaction such as socially, occupationally. Impairments in communication can lead to significant difficulties and can adversely affect a person's life (Murza, Nye, Schwartz, Ehren, & Hahs-Vaughn, 2014).

According to Stitcher, O'Connor, Herzog, Lierheimer, and McGee (2012), social problems are perhaps the most debilitating of all the impairments persons on the autism spectrum face. These social issues are present in childhood, throughout adolescence, and into adulthood. Persons on the autism spectrum need to learn social appropriateness as individuals who are neurotypical learn history or science in an academic setting (Howlin & Moss 2012). Individuals with ASD learn these skills in a number of ways, but usually, these skills are taught in a therapeutic setting (Stichter et al., 2010). A number of specially designed playgroups, support groups, and other social opportunities exist for children on the autism spectrum to work on their social skills (Beauchamp & Anderson, 2010; Bishop-Fitzpatrick et al., 2013). Support groups for adults also exist.

Lack of the ability to express empathy can hinder an individual's ability to communicate effectively. Many people on the autism spectrum have a great deal of difficulty in expressing their empathy, which may be misconstrued as the individual not having any empathy at all (White et al., 2010). Burgess and Turkstra (2010) used the American Speech-Language-Hearing Association's Quality of Communication Life Scale ([QCL] Paul et al., 2004) to determine if the QCL was a viable scale for testing if an individual with autism could communicate effectively. The sample included 14 persons on the autism spectrum and 15 persons who were neurotypical. The results of the study indicated that persons on the autism spectrum had significantly more difficulty communicating than did their counterparts.

Repetitive behaviors. Another primary area of diagnosis criteria is repetitive behaviors such as rocking and hand-flapping (Leekam, Prior, & Uljarevic, 2011). Some persons on the autism spectrum display repetitive behaviors because of stimming, which is a self-regulatory mechanism that many individuals on the autism spectrum use as a calming device after sensory overload (Wei-Zhen et al., 2014). Among the triggers of sensory overload are flashing lights, sounds, and crowds (Russo, 2011).

Cognitive delays. Autism is a spectrum disorder (DSM-5, 2013), with varying levels of functionality. Individuals with ASD can range from those with significant cognitive and social deficits to those who demonstrate significant cognitive abilities in a few areas, sometimes surpassing in knowledge as those who are neurotypical (Kapp et al., 2013). Many cognition delays are a result of a deficit in the rate the person processes information (Vause, Hoekstra, & Feldman, 2014). Another deficit is the way a person perceives various social experiences, which include verbal comprehension. Individuals with HFA have very mild to no cognitive delay (Wouters & Spek, 2011).

Treatments. Parents, doctors, and therapists may choose different ways to treat persons on the autism spectrum (Vause et al., 2014). These methods include various forms of medication and social skills training (Ching & Pringsheim, 2012; Mackenzie, 2011). Treatment modalities for individuals on the autism spectrum vary from person to person (Serret et al., 2014).

According to the Individuals with Disabilities Education Improvement Act (IDEA) of 2004, once students reach the age of 22, they age out, which means they are longer eligible for services through Free and Appropriate Public Education (FAPE). After children reach a certain age, they longer receive treatment under the special education model (Kayama, 2010). In the educational setting, many therapeutic models are available for children in the special education arena (Dipeolu, Storlie, & Johnson, 2014). People with HFA are particularly at risk; often, therapeutic modalities are difficult to attain once children age out of the system at age 22, which is part of IDEA (2004). Although persons with HFA do not have a severe disability, many still need the ongoing therapeutic modalities they once had (Schreiber, 2011). Autism is not just a childhood condition, but a lifelong condition that often in adulthood receives little attention (Manente, Maraventano, LaRue, Delmolino, & Sloan, 2010). Some maladaptive behaviors could come from this practice such as physical aggression stemming from frustration and anger (Trammell, 2013). Some individuals do not reach the developmental stage of adulthood until well after their peers who are neurotypical do, while others exhibit symptomology so severe they never do (Carter et al., 2013; Felce, Perry, Lowe, & Jones, 2011; Walton & Ingersoll, 2013).

Strengths. Persons on the autism spectrum have some advantages because of the way their brain processes information. Individuals on the autism spectrum have different ways of processing information than do persons who are neurotypical. Employers often desire traits exhibited by people with ASD (Syriopoulou-Delli, 2010). Persons on the spectrum perseverate, which can lead to intense focus and dedication to a single subject. Some persons on the autism spectrum are very logical and excel in mathematics and science (Pollak, 2009).

Many persons on the autism spectrum have narrow interests in hobbies or activities (Chia, 2012). Often an individual will choose one subject on which to concentrate their focus. As a person reaches adulthood, individuals become experts in their field. These experts are desired by employers for specific tasks. Many people have a diversified wide array of interests. When someone focuses all these energies on one subject, he or she no doubt will soon exceed others in their knowledge (Vivanti et al., 2011). Some persons with ASD do develop obsessive behaviors. To contrast the beneficial aspects of this phenomenon, these single-subject focuses can interfere with an individual’s daily living . However, single-minded focus does qualify as a detrimental condition.

Neurodiversity

Neurodiversity is a new concept that celebrates those with neurological differences that set them apart from people who are neurotypical, which set them apart from the whole of society (Robertson, 2009). Persons who receive a diagnosis of being neurologically atypical take on the perception of a person with some sort of disorder. Persons are thus encouraged to undergo various therapies so that they may mesh more appropriately with individuals who are neurotypical (Barneveld et al., 2014).

In a study by Kapp et al. (2013), a sample of 657 participants consisting of persons on the autism spectrum, family members, and people working in the field answered various qualitative type questions regarding how each participant felt about autism, and how they felt about neurodiversity. Is determined that 76% of persons on the autism spectrum were aware of the term neurodiversity and its meaning. Kapp et al. also found that individuals on the autism spectrum were more apt to discover the neurodiversity movement online. Persons who knew someone with autism or family members were also more aware of neurodiversity than were those who did not know any family or friends on the autism spectrum. Study findings also delineated that there was not a significant source of criticism regarding the concept of neurodiversity itself. The results are important in they provide a brief insight as to the possible outcomes of the present study (Kapp et al., 2013).

Griffin and Pollack (2009) focused on neurodiversity in higher education. Based in the United Kingdom, the study encompassed several different types of neurologically diverse populations such as those with dyslexia, ADHD, and ASD. Griffin and Pollack looked at how the label of neurodiversity helped the participants to view their potential in a different light. This study was qualitative and consisted of 27 participants. Griffin and Pollack's study is promising as it gives an example of how the concept of neurodiversity can help boost self-esteem thus raising the supposed potential of the individual. The limitations of this study were that it focused on neurodiversity in youth in an educational setting only, which leave a gap in the research as neurodiversity also pertains to adults in the everyday world.

Griffin and Pollak (2009) looked at 27 students with various learning disorders such as dyslexia, ADHD, ASD. Within that sample, each participant divulged details about their experiences about being neurologically diverse. Griffin and Pollak asked study participants if they supported the *difference* view or the *medical/deficit* view. The results showed that many of the students reported feeling sub-par, and these feelings created emotional turmoil. Many of the participants reported negative treatment by teachers and had an adverse view of the educational system in general. Participants reported a need existed for some sort of awareness or recognition program to educate the teachers as well as parents to the complexities of being neurologically diverse. Stakeholders should understand the difficulties students' experience, and how they may benefit rather than become a hindrance to their progress. Griffin and Pollak found that 50% of the students held a deficit view of their being neurologically diverse, but after utilizing resources such as the Developmental Adult Neuro-Diversity Association

(DANDA), persons with ASD changed their opinion of their condition and identified with the difference model.

Griffin and Pollack's (2009) study is significant because it highlights that with increased awareness of the neurodiversity concept, people's views change, potentially for the better. Research that focuses on adults with HFA would add more knowledge to the field. Research that analyzes how individuals with HFA perceive implementing the concept of neurodiversity into support groups could be beneficial. This study suggests a change in attitudes about adults with HFA is indeed possible (Griffin & Pollak, 2009).

Kapp et al. (2013) focused on neurodiversity versus the medical/deficit model of those diagnosed with autism. In all, 657 participants participated in this study, and it encompassed family members and those on the spectrum. This study resulted in distinctions between the neurodiversity movement and the deficit/medical model. This study did not focus on those diagnosed with autism solely but encompassed all of the players associated with the autism community. At the time of data collection, no studies existed on how clinicians solely perceive neurodiversity in contrast to the medical/deficit model.

History. Singer (1998) first coined the term neurodiversity in her honor's thesis in 1996-1997 and then presented the idea in 1998. Singer reported that neurologically diverse people bring new ideas. In 2015, society recognized differences in people in a variety of different ways such as gender, age, and ethnicity. Neurologically diverse people bring a new category of difference. Singer (1999) used the term neurodiversity to describe areas of discrimination, such as age and gender. Singer's work stirred some interest, particularly in online social support and peer support networks.

After publication of her first article on neurodiversity, Singer used the term frequently online in a number of egroups such as Autinet. As a result, the term neurodiversity rose in popularity (Jordan, 2010). Neurodiversity gained even more popularity when Harmon (2004) published an article about neurodiversity in *The New York Times.* At the time of data collection for the present study, a number of groups focused on the neurodiversity movement. This rise in the number of groups that tout the NDM shows growth of the concept.

Conflicting opinions on neurodiversity. Neurodiversity proponents reject the notion that people need to adhere to the normative behavioral archetype. They further reject the stance that if people do not adhere to this archetype, then the individual is in need of treatment. Neurodiversity rejects the medical model by often citing pharmaceutical companies that manufacture pharmaceuticals that significantly alter the mind and aggressive therapeutic measures (Jaarsma & Welin, 2012). Some neurodiversity proponents find the medical model insulting (Pollak, 2009; Robertson, 2009).

Mackenzie (2011) purported that our social infrastructure may not be ready for the NDM. Social service agencies may not be able to serve persons who may need the help. If an individual with a disability, suddenly loses the diagnosis, as non-disabled and neurologically diverse or a-typical, it could thwart any supports the person may have received in the past. Many social agencies and medical support systems focus on the term disability to justify their ability to provide services (Mackenzie, 2011). Persons who are against the concept of neurodiversity purport that individuals may become vulnerable if practitioners no longer place a disability label on people with HFA. By excluding the disability label, the practice may no longer protect persons who need protection (Mackenzie & Watts, 2011).

What neurodiversity celebrates. Neurodiversity proponents celebrate that people are different, not just in the typical manner. People have various characteristics such as race, background, personality, as well as neurologically (Cascio, 2012). Neurodiversity acknowledges the special and unique traits individuals have, particularly those with a societally deemed disability, such as ADD and ASD. Neurodiversity celebrates the uniqueness of individuals who are neurologically different (Shiloh & Lagasse, 2014).

Neurodiversity movement proponents evoke an identity formation that focuses primarily on social inclusion (Pollak, 2009; Robertson, 2009). Neurodiversity also disputes society's notion of disablement for persons with autism. The neurodiversity concept has a number of strengths. Its primary basis is uplifting and self-esteem boosting, rather than focusing on what is wrong with a person. Neurodiversity focuses on what is right and what special talents neurologically diverse people have to offer society (Pollak, 2009; Robertson, 2009).

Positive identity. By evoking a notion of social inclusion and by thwarting previous concepts of disablement, persons on the autism spectrum can embrace who they truly are and work to devise a positive identity (Singer 1998). With the NVM, a chance exists for significant social change by helping erase previous misconceptions of persons on the autism spectrum and by educating society. With education comes acceptance and genuine inclusion (Syriopoulou-Delli, 2010).

The concept of neurodiversity helps persons on the autism spectrum to view their diagnosis as unique and different, rather than the idea that they are defective in some way (Cascio, 2012). The idea of neurodiversity can help build self-esteem and enhance how persons on the autism spectrum perceive their disability (Pollak, 2009). People often have a better outlook on life and lead lives that are more productive when they have a positive identity intermingled with a strong self-esteem (Pollak, 2009).

Peer Support Groups

Researchers have found that peer support groups are beneficial (Cascio, 2012; Jantz, 2011; Seebohm et al., 2013). The purpose of the present study is to link literature from peer-reviewed, scholarly articles with new research to determine if the neurodiversity based support groups can help adults with HFA. The remainder of the literature review focuses on research published after 2010.

Examples of support groups with adults with HFA. In 2011, Jantz conducted a study on 35 adults with HFA. The Institutional Review Board (IRB) at Boston University recruited participants of this study. These participants fit into three different groups consisting of (a) those who were currently participating in a support group at the time of the survey, (b) those involved in a support group in the past, and (c) those who were seeking to take part in a support group.

Jantz (2011) found that persons on the autism spectrum enjoyed attending the support groups, and they had found them very useful. Participants were able to acquire social skills and were able to learn about some of their behaviors that other could misconstrue as abrasive. Other participants found that the support groups created a safe zone where they could convey their feelings and their concerns without the added pressure to be conformist to a social construct they did not fully understand. The focus of this research was to determine if the use of support groups for persons with HFA would be beneficial. This study did not focus on neurodiversity per se, but neurodiversity underlying themes existed. This study focused on the responses of persons with HFA, not solely on the professionals who serve them.

A study by Cascio (2012) was the only study found that encompassed both neurodiversity and support groups. However, Cascio based his study on support groups of mothers with children experiencing a number of different neurologically atypical issues not just HFA. These support groups did not specifically focus on neurodiversity although there were neurodiversity concept undertones in the discussions. Cascio did not concentrate on the neurodiversity theory; rather he looked for relating themes of thoughts and ideas. Data collected for this study consisted of both qualitative interviews as well as participant observation. Data analyzed included issue-focused coding. Results were conclusive in that the concept of neurodiversity reached acceptance in various circles including mothers who favored the disability, the cure model, and the difference model. The severity of functionality of the children may have had an impact on the mothers' acceptability to the neurodiversity concept. Cascio's research further legitimizes the gap of knowledge and acknowledges that a study support groups for those with HFA as adults focusing on the neurodiversity movement would benefit the field.

Examples using neurodiversity as premise in support groups. Some researchers included neurodiversity as a premise (Cascio, 2012; Griffin, & Pollak, 2009; Kapp et al., 2013). Many of these studies focused on issues other than HFA (Mackenzie, 2011; Owren, 2013; Shiloh & Lagasse, 2014). Because neurodiversity is a relatively new concept, a broad range of opportunity exists for research surrounding this topic. For the purposes of the proposed study, the focus will be on the neurodiversity concept as it relates to persons with HFA.

Lack of neurodiversity support groups for adults. Cascio (2012) conducted a study on both neurodiversity and support groups. However, this study was based on support groups of mothers with children experiencing a number of different neurologically atypical issues not just HFA. In addition, these support groups did not focus on neurodiversity although there were neurodiversity like themes in the discussions. The findings I discovered legitimize the gap in research and that a study is necessary, one that focuses on support groups just for those with HFA as adults focusing on the neurodiversity movement. As of March 2015, a gap existed as no previous research focused on the benefits of using the concept of neurodiversity in support groups for adults with high-functioning autism that I could locate after utilizing an exhaustive literature review. Research on this topic is beneficial to determine the efficacy of utilizing this facet in this manner.

Literature Review for Methods

Qualitative Research Design

Qualitative and quantitative research methodologies are the two commonly used research methodologies (Anderson, 2010; Bryman, 2008). Qualitative methodology is a tool that enables researchers to answer the how and why of research questions, ideas and thoughts that cannot be quantified (Brinkmann & Kvale, 2014; Burnard et al., 2008; Creswell, 2013; Houghton et al., 2013; B. Marshall, Cardon, Poddar, & Fontenot. 2013; C. Marshall & Rossman, 2011). Lee (2014) stated that qualitative design methodology is useful in studies where the researcher aims to collect data that are not quantifiable. I focused on interviews with a small number of participants as suggested by Patton (2002); Sbaraini, Carter, Evans, and Blinkhorn (2011); Silverman (2010); and Turner (2010). I aimed to find the why and the how of the main research question: determining the perception of group facilitators regarding the incorporation of support groups based in the concept of neurodiversity for adults with ASD (Anderson, 2010).

Grounded Theory

Grounded theory is a qualitative research design that serves as a tool for researchers to acquire data and analyze data collected for devising new theories through data (Birks & Mills, 2011; Charmaz, 2006, Corbin & Strauss, 2008; Creswell, 2013; Morse et al., 2009). In grounded theory, the researcher serves as the primary instrument, (Creswell, 2013; Morse et al., 2009). Grounded theory also consists of two different generations of methodologies: first generation, and second-generation grounded theory. Within the different methodologies, four different approaches exist. The first generation theory consists of traditional or Glaserian (Glaser & Strauss, 1967) and the systemic approach (Strauss & Corbin, 1990). The second-generation theories consist of constructivist (Charmaz, 2006) and postmodern (Clarke, 2005).

Although some facets exist in each of the four areas of grounded theory, in some instances, differences do exist. First generation grounded theorists purport that the researcher must be entirely unencumbered by previous knowledge or experience to conduct research completely unbiased (Glaser & Strauss, 1967; Holton, 2007). Second-generation theorists purport that a completely unbiased persona is unrealistic and unattainable (Birks & Mills, 2011; Charmaz, 2006; Corbin & Strauss, 2008; Morse et al., 2009). Second-generation theorists believe that for a researcher to conduct research in an area in which they have no experience or expertise leads to a degradation of researcher efficacy (Birks & Mills, 2011; Charmaz, 2006; Corbin & Strauss, 2008; Morse et al., 2009). Another difference between the two is that first generation enthusiasts support the notion that the researcher should not use his or her experience or knowledge for research methodology construction due to eliminating potential biases. Supporters of second-generation theory purport that preconceived theory may aid the researcher in the development of grounded research objectives (Birks & Mills, 2011; Charmaz, 2006). In addition, some differences in opinion exist as to the literature review procedures. First-generation theorists support the notion that literature reviews come after the study reaches completion to conduct the study without any preconceived notions (Holton, 2007). Second generation theorists purport that this notion hinders the researcher from devising a study based on extant knowledge in the field (Birks & Mills, 2011; Charmaz, 2006; Corbin & Strauss, 2008). Finally, first generation grounded theorists purported that through researchers’ unbiased ideology and because of their non-experience and lack of knowledge, the layperson may understand data dissemination (Glaser & Strauss, 1967; Holton, 2007; Strauss & Corbin, 1990).

The methodology for this study came from constructivist grounded theory from the second generation of grounded theory theorists. I, the researcher conducting this study, am not entirely unencumbered in the field of ASD, which makes classical grounded theory methodology inappropriate for the purposes of this study. I also created the research questions and conducted a literature review prior to data collection, which again, belongs in with the constructivist grounded theory methodology.

Other Qualitative Research Designs

Aside from grounded theory, researchers may select from other types of qualitative research designs (Creswell, 2013). In the following paragraphs, I briefly defined different designs and stated why that modality was not feasible for this particular study (Ponterotto, 2010). Each design has different features than can highlight different types of research. It is important for researchers to devise a proper design, one that is appropriate for their particular type of research and research questions.

Narrative-biographical study. Narrative-biographical studies focus on a small sample size, one or two participants, and I highlight various points in their lives chronologically (Creswell, 2013). This type of data often is similar to autobiographical and biographical books. This type of study also looks at narratives of an individual's life to analyze recurring themes (Wells, 2011).

For the purposes of this study, a narrative-biographical study would not suffice. Only one or two participants would not be a sufficient participant pool to explain the perception of clinicians regarding the neurodiversity concept in support groups for adults with HFA, and data saturation could not occur. For the scope of this study, this was not sufficient; this design would not allow me to answer the main research questions posed in this narrative and biographical format.

Phenomenological study. Phenomenological studies relate to the study of phenomenon within groups of people (Creswell, 2013). For example, a phenomenological study could focus on the experiences of different racial groups as individuals within that group experience racism. For the purposes of this study, neurodiversity is a theory and a notion of a potential therapeutic measure, which relates the grounded theory methodology as that model relates to untested modalities.

Creswell (2013) stated that phenomenological studies focus on phenomenon within groups of people based on their experiences. I focused on the perceptions of a group of people. Although these perceptions stem from experiences that construe as phenomenon, perceptions based on both experience and education about a phenomenon of a new modality for treatment that could occur in the future did not fit the scope for this type of study, thus, phenomenological design did not fit the scope of this study and thus rejected.

Ethnography. Ethnography is the culture of a particular social group (Creswell, 2013). The ethnography of a culture encapsulates their individual, social, and intellectual nuances (Murthy, 2013; Pelto, 2013). Although the autism community is a group of people with their own culture, ethnography would not suffice for this study. This study mostly focused on the potential adaptation of a new modality, neurodiversity, not the particulars of culture within the autism community.

The scope of this study did not focus solely on the culture of the autism community. Nor did this study focus on the living conditions of this group as a distinct and separate culture. As such, an ethnographical design did not suit the focus of this study, and thus rejected.

Case study. According to Creswell (2013), case study methodology focuses on single, multiple cases, or a single system over time. Case studies also use a number of data resources that may include interviews, field observations, reports, and multimedia materials (Creswell, 2013). For this study, the primary method of data collection was the interview.

For this study, a case study methodology did not suffice. This study did not cover a particular period as interviews take place once. To gather enough data so that data saturation could occur, this study required a healthy sampling of experienced clinicians from the field to serve as participants.

Qualitative Interviewing

Qualitative interviewing is unique from quantitative data collection procedures because qualitative interviewing is not as structured (Guest, Bunce, & Johnson, 2006). Qualitative interviewing techniques serve as valuable tools for researchers as they build onto extant knowledge through data collection instrumentation (Brinkmann & Kvale, 2014; Creswell, 2013). Semi-structured interviewing serves as a valuable tool for researchers conducting studies (Creswell, 2013; Kvale, 1996; Patton, 2002; Rubin & Rubin, 2005; Turner, 2010). In semi-structured interviewing techniques, the researcher has a set of questions to ask the interview participant (Brinkmann & Kvale, 2014; Creswell, 2013). However, because of the semi-structured nature of the interview, the researcher may ask other questions pertaining to the study’s main objectives, determinate upon interviewee answers (B. Marshall et al., 2013; Salmons, 2010). According to Brinkmann and Kvale (2014), researchers need to ponder carefully the interview questions to make certain that every question has a defined purpose. Researchers also need to attend to the order of question presentation (Rubin & Rubin, 2005). In qualitative interviewing techniques, researchers can get better results by asking open-ended questions (Creswell, 2013; Turner, 2010).

For this study, I used open-ended questions. The open-ended question structure of the interview questions enabled the research to acquire more detailed answers the question posed. This technique also enabled me to ask follow up questions if the initial answer was unclear (Creswell, 2013; Turner, 2010).

Computer-Based Coding

Coding serves as a tool researchers use to analyze data. Researchers code recurring themes or ideas and assign them a node or category (Holton, 2007). Researchers then analyze themes within these nodes. For the purposes of this study, I employed NVivo (QSR International, 2015; Wiltshier, 2011). According to Creswell (2013), researchers need to evaluate various factors carefully when choosing a software program. These factors include (a) ease of use, (b) types of data the program can handle, (c) text abilities such as highlighting, (d) note taking ability, (e) categorization issues, (f) assessment and analysis, (g) management of quantitative data, and (h) merging capabilities (Creswell & Maietta, 2002).

Summary and Conclusions

The research presented shows the status of the current knowledge and shows that a gap in the research exists. The present study further increases the knowledge of persons in this field. Although in 2015 many studies on autism existed, few studies focused on adults (Barneveld et al., 2014). Most research focused on children (Cascio, 2012; Magnuson & Constantino, 2011; Roberts et al., 2011). Relatively few studies focus on support groups for adults with HFA (Jantz, 2011). At the time of data collection for the present study, no research on neurodiversity based support groups for adults with HFA was located. Furthermore, no research that explored perceptions of clinicians as group facilitators with regard to neurodiversity was located.

In this literature review, I provided an extensive review of the current literature regarding the basic trends within this study. More specifically, a discussion of neurodiversity, autism spectrum disorder, support groups, and grounded theory methodology encapsulated the current knowledge in the field. In chapter 3, I will discuss elements pertinent to the research design. In addition, a discussion of detailed study rationale shall ensue.

Chapter 3: Research Method

Introduction

The purpose of this qualitative study was to gain perspectives of clinicians in the field about using the concept of neurodiversity in support groups for adults with HFA. In this chapter, I will discuss the research methodology, and will provide a rationale as to why qualitative grounded theory was the best choice for this study. I also discuss my role as researcher, issues of trustworthiness, and the ethical procedures I used. This study consisted of interviews concerning adults with HFA with the clinicians who serve them. Specifically, I sought to determine how clinicians perceived implementing the concept of neurodiversity into support groups, and if doing so could benefit the autism community. In what follows, I thus identify the targeted population of the study, and describe the sampling method and each particular criterion for selection.

Research Design and Rationale

Qualitative Methodology

Lee (2014) discussed the benefits of qualitative design. For the purposes of this study, I decided that qualitative methodology was the most appropriate modality. The data I collected consisted of interviews that sought to elicit participants' thoughts and ideas and thus was not suited to qualitative research (Bryman, 2008). I incorporated grounded theory as the primary research design (Sbaraini et al., 2011).

Quantitative methodology is numbers based wherein researchers disseminate research results through quantification such as statistics (Bryman, 2008). In quantitative research, the sample size usually requires large numbers to reach study validity and accuracy (Smith, 2012). Logistical issues can hinder the researcher from reaching a large sample size (Gravetter & Wallnau, 2013), and statistical errors and sampling errors can thwart the results of the study (Bryman, 2008). However, quantitative methodology can be quite beneficial because the delimitations often are transferable to charts and graphs which offer a pictorial disseminations of the research and which can be understandable to many (Gravetter & Wallnau, 2013). The primary method of data collection for this study was participant interviews. In the interviews, I posed open-ended questions which elicited a variety of responses. Because of the structure of these questions, the responses did not contain numerical data. Quantitative methodology thus did not suit the purposes of this study.

Grounded Theory

Glaser and Strauss (1967) initially conceptualized grounded theory. Grounded theory has four points: (a) data must be appropriate to the subject matter, (b) it is understandable to the public, (c) it is applicable for use in different situations, and (d) the researcher must maintain control over the process and the structure (Denscombe, 2011). Researchers using grounded theory aim to find the participants' primary focus or area of concern (Charmaz, 2006). With this model, researchers use empirical methods to conceptualize the main ideas or themes (Glaser & Strauss, 1967).

The procedures of my study adhered to the four points required by the grounded theory model (Glaser & Strauss, 1967). The collection of data was appropriate for the subject matter (Sbaraini et al., 2011). Through the central research question, I sought to ascertain how clinicians perceived the concept of neurodiversity, and if they thought its implementation could be beneficial in support groups for adults with HFA. Information collected from interviews produced usable data, and questions from these interviews directly correlated with the research question at hand (Mason, 2010). Both the interview questions and the research question were understandable to the public, an I took adequate steps to control the data and to protect against data contamination (Zilber, 2014). As part of the approval process for this study, I first devised the study methodology and then developed the interview questions as part of the methodological progression process. Subsequently, I followed recommendations from my dissertation committee to implement appropriate methodological processes.

Main Research Questions

This study's main research questions are as follows: How do clinicians perceive the neurodiversity concept? What are clinicians' impressions of a potential for social change in the lives of persons with HFA resulting from the implementation of the neurodiversity concept into support groups? What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?

Interview Questions

The semi-structured questions for these interviews directly correlated with the research questions (Mason, 2010). Data remained credible because the research maintained its integrity (Sbaraini et al., 2011). According to Brinkmann and Kvale (2014), it is imperative for the researcher to ask interview questions that are directly pertinent to the study's overall research questions. It is also imperative for the researcher to pay close attention to the construction of questions so that the questions elicit an informative and open response (Salmons, 2010). If interview questions elicit a closed-ended response, meaning the participant can answer the question with a *yes* or a *no*, the researcher may lose an opportunity to draw out more data that could answer the study's research questions (Brinkmann & Kvale, 2014). I developed the following interview questions:

- What thoughts do you have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning?
- As an experienced clinician who has worked with persons with ASD, how do you perceive the autism diagnosis affects the individual in terms of self-esteem?
- How do you perceive the concept of neurodiversity?
- Do you believe that the concept of neurodiversity can influence the way persons on the autism spectrum perceive their diagnosis?
- Do you believe the notion of neurodiversity will help or hinder the autonomy of individuals with ASD?
- Do you believe that the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD?
- How do you think persons with HFA will perceive the notion of neurodiversity?
- Do you believe that the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups?

This data collection method was appropriate for the subject matter (Sbaraini et al., 2011), and I used it to discover how clinicians who worked with adults with HFA perceived the concept of neurodiversity, and if the implementation of the notion was beneficial to support groups.

Role of the Researcher

Depending on the study's methodology, the researcher's role can vary. For the purposes of this study, my goal was to implement data collection and integrate the research methodology (Zilber, 2014). My role in this study was that of the interviewer. As such, I personally conducted interviews with the study participants.

I had no personal or working professional relationships with any of the potential study participants. Any relationships on the part of the researcher with potential participants would disqualify those potential participants (Burghardt et al., 2012), and recruitment of a potential participant with whom the researcher had a relationship, either personal or professional, would be ethically unsound (Zilber, 2014).

One bias I took into consideration as I developed my study was that I have two children with ASD (Burghardt et al., 2012). Moustakas (1994) stated that the researcher could set aside personal prejudices, thus reaching an epoché. For the purposes of this study, I worked to set aside biases and proceed without any prior judgment. My children are still minors and do not currently participate in any support groups. Thus, because my study focused on adults with ASD in support groups, there was less opportunity for my personal experiences to bias my research. Out of additional ethical considerations, I did not use any incentives for participants, and did not include any person that I knew personally or had any working relationships with. I developed the study methodology to avoid any potential ethical conflicts.

Methodology

Participant Selection Logic

Population. The participant pool consisted of clinicians who worked with persons with HFA in the United States at the time of data collection. Criteria for participation included professionals who (a) had experience working with persons with HFA, (b) had at least two years of clinical experience, (c) held a minimum of a master’s degree, and (d) held licensure from their state. For the purpose of this study, HFA refers to participants diagnosed by a clinician with ASD with Level 1 functionality as defined by DSM-5 (2013).

The participant pool consisted of a convenience sample. Participants were recruited in according to ease of contact after I determined that they met the study criteria (Suen, Huang, & Lee, 2014). Convenience sampling was the best choice for this research study due to time constraints. Potential participant selection correlated with the availability to sit for an interview after participants met the study criteria (Suen et al., 2014).

Sampling strategy. The sample was comprised of 12 clinicians solicited through LinkedIn. I sent potential participants a letter of invitation which stated eligibility criteria and included my email address, which they used to set up an interview appointment.

I used the professional networking modality, LinkedIn, for communicating with participants. Once I established participants’ eligibility, I asked each to searched the Internet for the term *neurodiversity*, using a web browser of their choice. The purpose of this step was to assure that prior, to the interview, participants were aware of the neurodiversity concept. Enabling participants to use a web browser of his or her choice eliminated the likelihood of skewed results arising from a particular search engine (Suen et al., 2014). By allowing participants to use multiple web search engines, a higher likelihood existed that the participants would look at different websites to gain a more generalized experience, which increased reliability and validity of this study (Bekhet & Zauszniewski, 2012). I used convenience sampling (Suen et al., 2014) as the sampling criterion for this study. I selected participants by the order in which those who met the eligibility requirements responded to the invitation. This selection process allowed me the convenience of collecting data from participants who showed interest first (Suen et al., 2014).

Criterion of participant selection. All participants were from the same group (licensed clinicians). Participants held a minimum of a master's level of education and were licensed practitioner in their state. Licenses in psychology, social work, or marriage and family therapy constituted the term "licensed" for the purposes of this study. Potential participants also needed to have at least two years of experience leading support groups for adults with HFA. I assumed that the potential participants were honest in reporting their qualifications.

Number of participants. The number of participants was 12 clinicians. Mason (2010) noted the more complex the interview questions, and the more heterogeneous, the more respondents are needed to reach data saturation. Saturation refers to the notion that once the researcher establishes a pattern in the data, it is a moot point in continuing further data collection (Sbaraini et al., 2011). The sample size for this study was relatively small in number because of the qualitative nature of the research, the scope, and limitations (B. Marshall et al., 2013). As Mason (2010) stated, the complexity of the interview questions often warranted more participants. The interview questions from this study were not complex, thus leading to a smaller sample size. As later discussed in chapter 4, 12 research participants were all that were needed to reach data saturation as discussed by (Sbaraini et al., 2011). Establishment of a pattern existed.

Procedures for participant selection. I created a recruitment flyer to post in the online professional social media modality of LinkedIn. Utilization of convenience sampling ensued (Suen et al., 2014). Once a potential participant contacted me showing interest and had met the requirements for the study, an interview time was set up at a time agreeable to both myself and the study participant.

Saturation and sample size. Guest et al. (2006) noted that 12 interviews from one homogenous group are common to reach saturation of knowledge. By maintaining the recommended number of interviews, the results from the data elicited quality. The participant size for this study was 12. Sbaraini et al. (2011) stated that by conducting multiple interviews, a point occurs when there is an established pattern, known as the saturation of knowledge. To conduct interviews after the saturation of knowledge is established was a moot point as no new knowledge was attainable.

I assessed for saturation by notating any obvious recurring themes throughout the interview process. Although there were recurring themes prior to the completion of the 12 interviews, I continued with the interviews as suggested by Guest et al. (2006) to elicit quality. After the Van Kaam coding procedure in NVivo commenced, I notated themes.

Patterns stemming from the participant responses were evident which guided the dissemination of the study findings.

Instrumentation

Primary instrumentation. I served as the primary mode of instrumentation for this study (Zilber, 2014), and as such developed the interview questions. In addition, I was the sole instrument for facilitating this research. Data delineation, collection, and dissemination were also my sole tasks.

Secondary instrumentation. I developed a set of eight questions to include in each interview. I used these questions to answer the research questions in this study. A description of each question and the rationale behind them follow.

What thoughts does the clinician have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning? The rationale for this question was that our society often stereotypes people based on their race, gender, or socioeconomic background (Connor, 2013). Stereotyping concerning diagnosis is no exception. When someone discovers that a person is on the autism spectrum, numerous thoughts come to his or her mind (El-Ghoroury, 2012). Many of these thoughts can be an inaccurate picture of a particular person. Many persons on the autism spectrum may have come across prejudice, or other types of negative behaviors or attitudes based on these misconceptions and prejudices (Beauchamp-Pryor, 2011).

As an experienced clinician who has worked with persons with autism spectrum disorder, how does the clinician perceive an autism diagnosis affects the individual in terms of self-esteem? People who have an autism diagnosis can have varying emotions surrounding it. Some people may be embarrassed or ashamed of their condition while others may want to embrace it (Kopetz & Endowed, 2012). How a person perceives their diagnosis is significant in how they perceive the neurodiversity movement and how it may or may not help in support groups (Jantz, 2011).

How does the clinician perceive the concept of neurodiversity? It was important to understand the participant's concept of neurodiversity. Whether or not the participant had a clear understanding of the term could have made an impact in the research (Cascio, 2012; Kapp et al., 2013). Misconceptions by individuals could easily thwart the opinion of the participants regarding neurodiversity if incorporating the concept into support groups could indeed make a positive impact or not (R. Savarese, 2010).

Does the clinician believe the concept of neurodiversity will influence the way persons on the autism spectrum perceive their diagnosis? This question was important because of what neurodiversity suggests, which is to help thwart the negative stereotypes of persons on the autism spectrum (Cascio, 2012). The opinion of the clinician was essential to the study. Clinicians who work with persons with ASD had the experience and knowledge of this population and could best hypothesize how individuals with ASD would react to the NDM.

Does the clinician believe the notion of neurodiversity will help or hinder autonomy of individuals with ASD? Again, this issue was important because it had the potential to reduce/prevent negative perceptions and connotations associated with ASD (Cascio, 2012). If it did not, it would influence a person's attitude toward the concept of neurodiversity and its ability to help people when incorporated in support groups. Clinicians had the necessary experience and training to hypothesize if the concept of neurodiversity will hurt or hinder an individual's autonomy.

Does the clinician believe the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD? This question was important because self-esteem is one of the main tenets proponents of the neurodiversity movement purport (Jantz, 2011). If clinicians believed the implementation of the neurodiversity concept in support groups for persons with HFA could harm an individual's self-esteem, then the frame of understanding of neurodiversity may not be effective in adults with HFA. If clinicians believed that the implementation neurodiversity could help bolster self-esteem in adults with HFA, then the findings of this study could warrant further exploration.

How does the clinician consider persons with HFA will perceive the notion of neurodiversity? This question was necessary to see if clinicians believed the concept of neurodiversity could make an impact in a person's life (Kapp et al., 2013). If clinicians believed the concept can, then the concept of the NDM could have influenced that person's perception regarding the central research question (Cascio, 2012). Initial reactions to a new therapeutic modality by persons the clinicians plan to reach are important (Cascio, 2012; Kapp et al., 2013).

Does the clinician believe the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups? If participants believed that neurodiversity would be beneficial, there would most likely be an inclination from the previous interview questions (Jantz, 2011). However, the opinion of a clinician who had experience working with this population was important. By hypothesizing potential outcomes of this modality, it legitimized the concept and was the first step in the model's inception in the ASD community.

Procedures for recruitment. I posted an advertisement on my page in LinkedIn about the study, which outlined the participant criteria. Once interested, a potential participant contacted me via the LinkedIn inner mail. I contacted a number of clinicians through her second and third-degree connections along with contacting specialized groups. Second and third-degree connections were connections of my first-degree connections, but had no direct connection with me. LinkedIn also provided a platform for specialized professional groups to form so that professionals can collaborate and network, which I used.

Pilot study. A pilot test of questions commenced (Tickle-Degnen, 2013). Three non-biased, test subjects served as participants at my convenience. Test subjects held the same participant qualifications and did not receive compensation in any way. The pilot interviews allowed me to test and ensure the methodology of data collection would run smoothly. The pilot test contained three trial interviews (Teare et al., 2014). Recruitment commenced through LinkedIn, same as in the study. Pilot runs were beneficial for finding any procedural issues such as technological difficulties.

Demographic questions. Demographics information was collected prior to each interview and were collected to give the reader a sense of who the participants were. Demographic questions consisted of age, gender, locality, level of education, and ethnicity. These questions served as a secondary instrumentation as they aided me in the collection of demographic information. Measures to disseminate demographic information included a detailed explanation of the findings along with any significance (Gravetter & Wallnau, 2013).

Procedures

Procedures for participation. Interested study participants contacted me via LinkedIn mail. Delivery of an informed consent form for review and signature to the potential participant ensued once I received the potential participant's inquiry (see Appendix A). Upon signing the consent form, research participants verified they met the eligibility requirements for this study. Once the signed informed consent form reached me, I sent a potential participant an email to arrange a meeting time. I then set up a chat room through GoToMeeting and delivered the login information to the potential participants. Participant confidentiality was of utmost importance. I safeguarded all participant information on her personal computer in an encrypted file. In addition, I assigned participants a number to replace their name to conceal the identity as she encoded information into NVivo.

Procedures for data collection. After the pilot study, procedures for the actual study commenced and mirrored procedures explained for the pilot study. Prior to the interview, the participants and I agreed to meet via a GoToMeeting chat modality according to the suitability of their schedules. During the interview, transcripts were stored and consisted of the majority of data. The participant interviews consisted of a one-time online chat session through GoToMeeting. No voice interviews occurred. This process eliminated the possibility of errors in transcription and eliminated bias that could occur if I misconstrued participant variations of intonations of speech. Following the question and answer phase of the interview chat session, I debriefed each study participant. I then asked each participant if he or she would like to receive the findings at the conclusion of the study. In addition, in debriefing, the participants received notification that if they changed their mind about me using their interviews in the study, they were welcome to notify me, at which time their data would no longer be included. The last debriefing procedure was that I thanked each participant for his or her time. The duration of each interview lasted approximately one hour, which was the only data collection period. Data recordings existed by saving the chat transcript from the interviews in the GoToMeeting chat modality.

Data Analysis Plan

How and when data analyzed. According to Saillard (2011), assisted analysis software to develop a grounded theory project is a viable and useful tool. Each interviewee received a number, which replaced the participant's name to protect the participant's identity. I then created classifying fields to describe participant specifics. Each facet of datum received a classification and node within the software program NVivo (Castleberry, 2014). Once all data were compiled and coded, I looked for significant findings and provided a dissemination of the results. A separate Word document contained the identities of the participants with their corresponding numbers kept only by me, on my personal computer, and encrypted. Destruction of all data shall occur five years after completion of this study. Study participants could request a copy of their interview transcript in its raw data form from me at any time. Participants did not have the opportunity to review the content of their interviews other than during the real-time online chat session prior to coding procedures.

Proceedures for determining data saturation. Because of the simplicity of the participant interview questions, I used 12 research participants as suggested by Mason (2010). Sbaraini et al. (2011) stated that once a pattern in the data becomes evident, no further data collection was needed due to the saturation of knowledge. In this study, I reached a saturation of knowledge from the interview questions posed. I identified recurring themes throughout each interview question in this study and thus established that data saturation had been achieved.

Procedures for discrepant cases. For this study, only potential participants who met the eligibility criteria proceeded to the interview stage. For participants who did not follow through with the demands of the study and did not respond to my emails, then that participant was no longer part of the study. For prospective participants that did not follow through with the interview, destruction of all pertinent data occurred. Data destruction occurred by permanently deleting all the pertinent files. When participants began to discuss data beyond the scope of this study, I redirected the participant. No participants revealed they were on the autism spectrum, but this would not have disqualified them.

Software program used. The company QSR developed the NVivo software program. At the time of data collection, the latest version was 10. NVivo is a comprehensive qualitative data analysis (QDA) software program. NVivo is primarily for use when working with qualitative, unstructured data. NVivo is a tool that helps researchers organize and sort data by allowing importations from a variety of sources. These sources include (a) interviews, (b) articles, (c) field notes, and (d) documents (Castleberry, 2014).

In a study by Wiltshier (2011), a number of researchers worked on the same project while using NVivo software. The software enabled me to compile data from a number of sources and analyze these data in a productive manner. The researchers working on this study stated that they were pleased with the amount of data they could work on and the ability to categorize at the same time. Researchers could also work on one particular aspect of the study at a time.

Coding procedures. I used a modified Van Kaam coding procedure (Moustakas, 1994). Each interview question posed by me included a node for eight nodes representing each of the interview questions posed to study participants. Within each node, I created queries relating to emerging depending on participant responses. By creating nodes and queries within NVivo, I found commonalities within responses (Castleberry, 2014). These commonalities guided the results of data examination.

Protection of human participants. Human participants' identity was strictly confidential. Names and contact information are the sole properties of myself who only retained this information to keep participants informed of the progress of the research and the results (Mason, 2010). Creation of an encrypted file consisting of participant information, which will remain the intellectual property of myself, occurred. Upon selection for participation in this research study, participants received a numerical code to replace their name to keep their identity confidential. Destruction of participant information shall occur after five years from the completion of this study. Deletion of participant data consisting of files on my hard drive and backup devices shall occur, thus fulfilling the destruction of data.

Dissemination of findings plans. After all the interviews had taken place, I ran reports and created graphs and charts to allow for a visual dissemination of the information from data collected. After the visual details, a written report followed with careful consideration to the scope of the dissertation rubric. This written report contained conclusions of the study.

Issues of Trustworthiness

Credibility

Researchers address the issue of credibility and internal validity by conducting multiple interviews to ensure the saturation of knowledge (Mason, 2010). Posing pertinent questions to the data is essential for creating credibility. For the purposes of this study, all questions raised by me had a purpose. Participants needed to have at least two years of experience working with persons with HFA. This rationale was that the participants needed to understand the population and needed to have experience working with said population. Participants needed to have experience working with persons with ASD in a support group setting for at least two years and have a license to operate as a practitioner in their state. Licenses in psychology, social work, or marriage and family therapy constituted the term licensed for the purposes of this study.

I used two forms of internal validity techniques: member checks, and data saturation. I conducted member checks throughout the interview process to ensure that she understood the interviewees. I conducted member checks by reiterating information said by the participant so that the statement was clear to both parties. I also used data saturation as previously described (Sbaraini et al., 2011).

Transferability

I provided the reader with thorough descriptions of the study procedures. To enhance transferability, I included exhaustive details pertaining to the research methods and details concerning the findings. By providing detailed descriptions, I provided readers with an opportunity to transfer this study's conclusions to other contexts (Houghton et al., 2013).

Dependability

I provided detailed procedural documentation along with the rationale for each step in the study process. By providing exhaustive information regarding the research methodology as suggested by Houghton et al. (2013), I provided readers with an understanding of the methodology. This was important for me to do in order to ensure the methodology is understandable to other researchers.

I utilized computer software NVivo, which eliminates human bias, thus leading to result in dependability (Silverman, 2010). Silverman (2010) discussed the ability of NVivo to perform tasks related to the dependability of a study. I used NVivo's capacity to help track decisions made during data evaluation by tracking various elements to include text searches, coding, and queries.

Confirmability

Confirmability closely relates to dependability (Houghton et al., 2013). I conducted a pilot study, which added to the confirmability of the study. I also documented all procedures, checked, and re-checked data during the study. At the conclusion of the data collection period, I conducted a data audit to ensure that the study followed all the correct procedural processes. In addition to these measures, the members of the dissertation committee served as an external confirming corroborating body. The members of the dissertation team serving on my committee are doctors of philosophy, and current in research protocol and procedures. Similar to dependability factors, the use of NVivo by researchers strengthened the confirmability of this study as the commonalities between interview questions and participants were computer generated (Silverman, 2010). To establish confirmability, I also saved each draft of this proposal to create an electronic reflexivity journal, which showed what changes occured, when, and why (Lincoln & Guba, 1985).

Ethical Procedures

IRB Considerations, Treatment of Human Participants

The participants did not constitute a vulnerable population. At the time of data collection, all participants served in the clinical field of psychology, social work, or related field and were highly trained and educated. Human participants constituted the basis of this study, and as such, they attained high regard and utmost respect in my eyes. No face-to-face contact with the participants occurred because of geographical constraints. I sought approval from Walden University's IRB department before data collection ensued with the approval number 08-26-15-0160280 (Klitzman, 2013).

Ethical considerations for participant privacy and opinions encompassed a system for participant anonymity. After data collection from the participant interview, raw data were stored, and the participant's identity reached anonymous status by replacing the participant's name with a number. This number referred to each participant during data coding and data dissemination rather than the participant's identity, thus protecting the privacy of the participant.

While the study was underway, participants could have chosen to end their participation at any time without any ill effects. No participants chose to withdraw from the study during or after the interview took place, if a participant had, I would have handled each participant with composure and professionalism. In the event participants wished to withdraw, they could do so prior to the interview using the same methods that they let me know of their initial interest, through LinkedIn mail. If participants wished to withdraw during an interview, they needed to let me know during the interview, and the participant would no longer be included in the study. If participants chose to withdraw after the conclusion of the study, they could let me know via LinkedIn mail, and I would delete their information by identifying them from the 4-digit code they received initially as an identifier. I ensured that she would not hold any animosity or wish ill will to those who chose not to complete the study. However, no participants chose to withdraw during or after their interview. Several potential participants chose not to participate in the study before an interview was scheduled. For these potential participants, destruction of participant data occurred and included consent forms, unfinished interviews, email addresses, LinkedIn information, Go To Meeting instructions, and contact information. For participants who did not attend the pre-arranged meeting time for the interview, I followed up, asked to reschedule, and attempted to determine if he or she would like to continue participating.

Ethical Concerns Related to Data

Data relating to the study will remain my personal intellectual property and will remain confidential. The information contained in the informed consent form will remain confidential, as will the participant’s identities. Data collected via the online interview was confidential. For data storage, I will hold all data in an encrypted file on her computer for a period of 5 years. Destruction of these data shall occur at the end of 5 years. Although none of the participants chose to withdraw early from the study, I would have respected their wishes if they had. Their data would not be included in the study, and no ill would come from me.

Ethical Considerations Related to Outside Research Models

LinkedIn. LinkedIn is an online-based professional networking modal of social media (Archambault & Grudin, 2012). All members of LinkedIn create their own profile and passwords. Potential participant selection is through LinkedIn; participants shall abide by all the rules stipulated by the LinkedIn user agreement upon joining. LinkedIn members also agree to LinkedIn's privacy policy. LinkedIn also provides members with information and tips to keep their personal information private, which includes how to create a secure password. LinkedIn also provides users with additional security including utilizing CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart), which ensures that a human logs in, and not a computer. LinkedIn also adds an additional security measure by using email verification. If LinkedIn professionals notice any unusual activity on a participant's account including, which includes logging in from a different location or higher than usual usage, email verification occurs. LinkedIn also provides users with an optional two-step verification process in addition to CAPTCHA. Users can elect to turn on this extra two-step verification process. This two-step verification verifies users by either requiring a code sent via SMS to the user's mobile device or by asking a question that only the user will know. LinkedIn also offers users to turn on the HTTPS (Hypertext Transfer Protocol Secure) mode for added protection.

Go To Meeting. Go to Meeting is an online chat mechanism for conducting online interviews (Perron & Ruffolo, 2010). This service has 24/7 customer support, and the platform allows the researcher to export text. GoToMeeting served as the online chat modality for this study. I paid the nominal fee for the Go To Meeting subscription. Past meetings remain on the GoToMeeting system for 90 days, at which time, data face automatic removal. I served as the administrator. Security measures include SSL (secure sockets layer) encryption, a 128-bit AES (advanced encryption standard) encryption, and automatic timeout period for inactivity.

Summary

In this chapter, I outlined the numerous issues pertaining to the nature of the study methodology to include the study's qualitative nature. Chapter discussions also included research design and rationale, which outlined the research design methodology. Instrumentation and matters relating to trustworthiness and specific issues pertaining to IRB interest occurred to include participant privacy and the security of data. This qualitative study used grounded theory research design.

I will discuss data dissemination following the conclusion of data collection and coding in chapter 4. I will discuss the details concerning the data collection period as well as details regarding the results. I will discuss significant findings as well as implications of the study regarding social change. Chapter 5 will contain the implications, conclusions, and recommendations of the study.

Chapter 4: Results

Introduction

The goal of this study was to aid professionals in understanding how clinicians perceive the concept of neurodiversity in support groups for adults with HFA. This research contributes to the field of psychology because I aimed to determine the potential efficacy of implementing another support methodology for adults with HFA. The primary research questions were: How do clinicians perceive the neurodiversity concept? What are clinicians' impressions regarding a potential for change in the lives of persons with HFA resulting from the implementation of the neurodiversity concept in support groups? What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?

In this chapter, I present the results of this study along with those from the pilot study. I also present demographics, and the data collection and analysis procedures that I used. I discuss matters relating to trustworthiness such as credibility, transferability, dependability, and confirmability. Concluding this chapter, I include an in-depth discussion of the findings of this study using thick descriptions and charts.

Pilot Study

The purpose of the pilot study was to test the procedures in all aspects to ensure their efficiency. I followed the same methodology and procedures that I planned to use in the full study. Because the pilot study confirmed the efficiency of my methodology and procedures, I made no changes in instrumentation or data analysis strategies for the full study.

Setting

I conducted interviews using the Internet chat modality GoToMeeting, and served as the sole interviewer for this study. GoToMeeting was the primary data accrual instrument used throughout the entire interview process. Interviews were conducted at places of convenience for both parties involved. To maintain participant confidentiality, I conducted these interviews from my personal computer, in a private setting, with no distractions. I also had no association with the participants prior to the interviews, either personally or professionally.

Demographics

Participants in the pilot study consisted of two males and one female. Their ages ranged from 29 to 65, and they were licensed in the states of Colorado, California, and Hawaii respectively. Two participants self-identified as White, and one self-identified as Polynesian. Of these three participants, two held doctoral level degrees, and one held a master's level degree (see Table 1).

Table 1

Demographics: Pilot Study

Participant #	Age	Location	Gender	Education	Ethnicity
2345	51	Hawaii	M	PsyD	Polynesian
3456	65	Colorado	M	PhD	White
1010	29	California	M	MS	White

Using a convenience sampling method, I recruited and interviewed 12 participants for the full study from LinkedIn (see Table 2). These participants lived throughout the geographic regions of the United States, and were from eight different states. All the participants had either a master's degree or a doctoral degree. I recruited both male and female participants. Participants ranged in age from 29 to 56 years old (*M* = 39.75). Participants also had ethnic diversity, and self-identified as White, Hispanic, Black, and Asian.

Table 2

Demographics: Full Study

Participant #	Age	Location	Gender	Education	Ethnicity
7772	49	S Carolina	F	MS	White
9127	33	New York	F	PhD	White
7654	46	California	F	MS	Hispanic
4321	38	Washington	M	PhD	White
1357	34	Massachusetts	F	MS	Asian
5389	36	California	F	MFT	Black
8756	34	New Jersey	F	MS	White
6655	29	California	F	MS	Hispanic
5432	38	Maryland	F	PhD	Black
5668	45	New York	F	MFT	White
2876	56	Delaware	M	PsyD	White
6789	39	California	F	MFT	White

I posted a call for participants on my LinkedIn page on August 28, 2015. I also posted calls for study participation in LinkedIn groups such as Autism Meta Network, American Psychological Association Division #33--Intellectual Disabilities/Autism Spectrum Disorders, and Autism Speaks. As a result, I sent out 42 LinkedIn emails to potential participants.

This initial effort yielded 41 potential participants, and I emailed consent forms to all who responded. Two respondents stated that they did not qualify. Nine of the initial respondents heard about the study through Autism Meta Network, ten respondents came from the call for participants advertisement that I placed in Autism Speaks. One respondent came from American Psychological Association Division #33. Fourteen respondents came from second and third degree LinkedIn connections. Five respondents came from first-level connections who shared my call for participants with their contacts. Of the 41 possible participants who qualified, nine consented to participate in the study. A week after sending out the consent form, I sent follow-up emails to each of the potential participants asking if they were still interested in taking part in the study. Six potential participants responded to the follow-up email.

Data Collection

Location and Procedures

For each interview, I set up a time that was mutually agreeable to both me and the participant subsequent to the participant's consent to the items contained in the consent form. I sent participants an email reminder that they needed to research the term *neurodiversity* using a web browser of their choice prior to the interview. During the email exchange to arrange for an appropriate meeting time, I collected demographic information from each of the participants. I had previously disclosed the interview questions in the consent form, which gave many participants the opportunity to write their responses prior to the actual interview.

Timeframe

I received IRB approval August 26, 2015 (approval number 08-26-15-0160280). The participant recruitment phase for this study took place between August 28, 2015, and September 20, 2015. Interviews lasted between 33 min 12 seconds to 53 min 26 seconds, with an average interview time of 42 min 46 seconds (see Table 3). Total interview time for all 15 interviews was 10 hours, 41 minutes, and 36 seconds. These interview times reflect the actual interviews, and include the eight research questions and the debriefing portions, but not the demographic questions.

Table 3

Interview Dates, Times, and Duration in Chronological Order

	Date	Time	Duration
Interview 1 (Pilot)	09/02/15	16:00PDT	46m15s
Interview 2 (Pilot)	09/03/15	18:00PDT	34m42s
Interview 3 (Pilot)	09/04/15	20:30PDT	52m09s
Interview 4	09/08/15	17:00PDT	39m48s
Interview 5	09/08/15	18:00PDT	43m39s
Interview 6	09/08/15	20:00PDT	50m01s
Interview 7	09/10/15	19:00PDT	38m17s
Interview 8	09/11/15	17:00PDT	42m56s
Interview 9	09/13/15	18:00PDT	38m19s
Interview 10	09/14/15	20:00PDT	45m17s
Interview 11	09/14/15	18:00PDT	41m45s
Interview 12	09/16/15	17:30PDT	37m23s
Interview 13	09/18/15	17:00PDT	53m26s
Interview 14	09/20/15	11:00PDT	33m12s
Interview 15	09/20/15	19:30PDT	44m27s

Information Management

I stored the data in an encrypted file on my personal computer, and the contents are my intellectual property and not shareable with any outside parties. Following each interview, I transcribed the chat log from GoToMeeting into an interview transcript. Follow-up questions to the initial interview questions commenced depending on the level of clarity of the initial response during the interview. No follow-up interviews were required.

Bias Control

Although I have two sons who are on the autism spectrum, I reached an epoche and held no bias before, during, or after data collection (Moustakas, 1994). This study focused on adults with HFA. At the time of data collection, my children were minors. For this study, I was able to set aside personal bias as stated by Moustakas (1994) as the study focus population was not within the realm of my children.

For further bias control, I recruited participants who held no personal relationship with me or with Walden University. I used a methodology that had been approved at the proposal level by my dissertation committee. At no time did I deviate from the order of the questions or from the wording. I also did not speak to the participants before, after, or during the interviewing session about items not pertaining to the study. Finally, I did not at any time mention my children or my personal association with autism.

Unusual Circumstances

One unusual circumstance occurred during the data collection phase of this study. I had reached an agreement with a participant regarding a meeting time. The participant did not attend the meeting, and I followed up with an email. The participant responded to the email, apologized, and informed me that she would be available the following week. We agreed on a second interview time. However, the participant did not attend the second interview either, and I decided not to follow up because the participant had missed two mutually agreed upon interview opportunities. A week following the second missed interview, the participant contacted me once more to arrange a time. I agreed to this time, and we were able to meet for the interview, thus completing data collection for that participant.

Another unusual circumstance was that, because I had included the survey questions on the consent form, four potential participants emailed me their answers to the questions, passing over the interview. Of these four participants, only one agreed to meet for the formal interview. The other three potential participants never responded to my email requesting an interview, so I destroyed their data.

Data Analysis

I used a Van Kaam coding procedure (Moustakas, 1994) within the NVivo software for data analysis. With the Van Kaam coding procedure, I was able to create nodes for each of the eight interview questions and queries within those nodes based on the participants' responses. For example, the first interview question was: What thoughts do you have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning? I created a node in NVivo for this question. From this interview question, the following themes emerged from the participant responses: negative stereotypes, a wide range of functionality, society is quick to judge, lack of social skills, quick to label, strong push to teach normalcy. I created a query for each of these themes within the interview question node. I used this procedure for each of the eight interview questions during the coding process.

By using this method, I was able to find commonalities in the responses, and these responses served as the results of the study (Castleberry, 2014). I assigned each interview question to a particular research question (see Table 4). Commonalities and themes then emerged through my use of queries (see Table 5). I also coded the interview questions to show basic themes, as shown in Table 6. Table 7 displays the basic/general response categories by interview question.

Table 4

Specific Interview Questions Used to Answer Each Research Question

Research Questions		Interview Questions
RQ1: How do clinicians perceive the neurodiversity concept?	IQ1	What thoughts do you have concerning stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning?
RQ1: How do clinicians perceive the neurodiversity concept?	IQ2	As an experienced clinician who has worked with persons with autism spectrum disorder, how do you perceive an autism diagnosis affects the individual in terms of self-esteem?
RQ1: How do clinicians perceive the neurodiversity concept?	IQ3	How do you perceive the concept of neurodiversity?
RQ2: What are clinicians' impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into support groups?	IQ4	Do you believe the concept of neurodiversity can influence the way persons on the autism spectrum perceive their diagnosis?
RQ2: What are clinicians' impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into support groups?	IQ5	Do you believe the notion of neurodiversity will help or hinder autonomy of individuals with ASD?
RQ2: What are clinicians' impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into support groups?	IQ6	Do you believe the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD?
RQ3: What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?	IQ7	How do you think persons with ASD will perceive the notion of neurodiversity?

Table Continues

Research Questions		Interview Questions
RQ3: What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?	IQ8	Do you believe the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups?

Table 5

Summarized Response Categories by Interview Question

Interview Question	Emerging Themes
1 - What thoughts do you have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning?	Negative stereotypes Wide range of functionality Society is quick to judge Lack of social skills Quick to label Strong push to teach normalcy
2 - As an experienced clinician who has worked with persons with autism spectrum disorder, how do you perceive an autism diagnosis affects the individual in terms of self-esteem?	Poor effect on self-esteem Determinate upon level of functionality Depends on level of understanding Don't care Causality of depression Don't understand why they do not fit in Depends on the people within their environment
3- How do you perceive the concept of neurodiversity?	Dispel the negatives of a diagnosis Agree with the notion Forward thinking Help people to reach full potential Neurotypicals may have a hard time
4 - Do you believe the concept of neurodiversity can influence the way persons on the autism spectrum perceive their diagnosis?	Mitigate negativity Depends on understanding Very helpful May take a while to accept

Table Continues

Interview Question	Emerging Themes
5 - Do you believe the notion of neurodiversity will help or hinder autonomy of individuals with ASD?	At-ease with diagnosis Own strengths No, behaviors are learned already Could be misused More confidence More options socially Therapy with neurodiversity helps
6 - Do you believe the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD?	Comfortable in their own skin Boost self-esteem Notion itself would not make a difference
7 - How do you think persons with ASD will perceive the notion of neurodiversity?	Embrace it Many already know about it
8 - Do you believe the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups?	Definitely Needs support in family In right environment Depends on cognitive functioning

Table 6

Summarized Response Categories by Research Question

Research Questions	Emerging Themes
RQ1: How do clinicians perceive the neurodiversity concept?	Diagnosis may trigger extreme behavior Increasing acceptance Individual ability to handle symptoms Individual sense of acceptance Misunderstood Negative Perceptions Evolution Social Spectrum Positive social support Stereotypes
RQ2: What are clinicians' impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into support groups?	Improved autonomy Not improved autonomy Not sure Mitigate negativity No impact on individual but family Not broken but different and functional Understand diagnosis
RQ3: What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?	Impact of concept Indifferent perceptions of neurodiversity Positive perceptions of neurodiversity Perceptual Challenge Self-esteem

Table 7

Basic/General Response Categories by Interview Question

Research Questions	Emerging Themes
1 - What thoughts do you have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning?	Yes stigma No stigma Stereotypes
2 - As an experienced clinician who has worked with persons with autism spectrum disorder, how do you perceive an autism diagnosis affects the individual in terms of self-esteem?	Depends Don't get it Adversely
3- How do you perceive the concept of neurodiversity?	Accept or agree with Not sure Definitions
4 - Do you believe the concept of neurodiversity can influence the way persons on the autism spectrum perceive their diagnosis?	Yes Take a while Can't be understood Still a label
5 - Do you believe the notion of neurodiversity will help or hinder autonomy of individuals with ASD?	Help Both Hinder our understanding
6 - Do you believe the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD?	Help Depends on personality Depends on functionality
7 - How do you think persons with ASD will perceive the notion of neurodiversity?	Embrace or agree with Difficulties Not Sure
8 - Do you believe the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups?	Yes

Evidence of Trustworthiness

Credibility

In this study, I addressed the issue of internal validity by conducting multiple interviews to ensure data saturation (Mason, 2010). Sbaraini et al. (2011) stated that once a pattern in the data is established, it is a moot point in continuing with further data collection, as with what occurred in this study. Each of the questions posed by me had a purpose, as described in chapter 3. To increase credibility, I placed specific qualifiers for this study on potential participants. These qualifiers mandated that participants have had experience working with persons with ASD in a support group setting for at least two years and have a license to practice in their state. In addition, participants held a least a master's degree in the fields of psychology, social work, or marriage and family therapy.

Internal forms of internal validity techniques used were member checks and data saturation. I conducted member checks throughout the interviewing process to ensure that the information provided was both understandable as well as clear. I reached data saturation as the data collected presented a definitive pattern (Sbaraini et al., 2011).

Transferability

I provided the reader with thick descriptions of the study procedures. To increase transferability, I provided exhaustive details regarding the research methods and details leading to the results of the study. I provided readers of this dissertation with an opportunity to transfer these conclusions into other contexts by using thick descriptions (Houghton et al., 2013).

Dependability

While conducting this qualitative research study, I provided detailed documentation regarding the study procedural process as stated would occur in chapter 3. As Houghton et al. (2013) stated, readers should understand my methodological rationale for the study. I achieved this by providing the reader with ample documentation and rationale regarding the process and the outcome of the findings concerning this study. Silverman (2010) also noted that the software I used, NVivo, had the capability to provide me with valuable tools for data evaluation. The uses of NVivo, version 10, lead to the removal of human bias, which resulted in dependability. For this study, I used the following measures to ensure dependability: detailed documentation (thick descriptions) and controlled bias in coding (through NVivo).

Confirmability

According to Houghton et al. (2013), confirmability closely relates to dependability. Throughout the course of the data collection period, I documented all procedures, checked, and re-checked data and the procedural process. A description of the confirmation procedures follows.

I began with a pilot study. By conducting a pilot study, I was able to add to the confirmability of the study by ensuring the processes of data collection was adequate. At the conclusion of conducting the pilot study, I was confident that the data collection process was adequate for this study.

At the conclusion of the data collection process, I performed an audit of the procedural process to ensure that I followed the correct procedural processes as outlined previously in chapter 3. At the end of each interview, I again looked over the data collection procedures as approved by the dissertation committee to ensure that the procedures met the aims of this study. After I had conducted the data collection audit, I was confident that all procedural process for data collection met the previously agreed upon procedural processes as approved by the dissertation committee.

Results

Research Question Findings

Each interview question (IQ) developed by me posed a specific question to help clarify each research question (RQ). The formatting of this section is by individual research questions. A discussion regarding the results of each interview questions as they relate to the research question follows.

RQ1: How do clinicians perceive the neurodiversity concept? The following three interview questions posed to participants aided me in answering the first research question posed above. These questions were important tools I had to answer her research question. Clinicians overwhelmingly stated that neurodiversity could be a positive influence when introduced to persons with ASD.

IQ1- What thoughts does the clinician have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning? Overwhelmingly, all of the participants feel that there are stigma and stereotypes associated with persons with ASD. Participants said, "…society wants to label a person easily because it is easier for them...","… unfortunately a lot of stereotypes that encourage this stigma…"," …they are unfairly stigmatized…". This question was relevant to the first research question because it is part of what neurodiversity proponents aim to thwart. It was important to establish if clinicians believe that there are stigma and stereotypes associated with ASD.

IQ2- As an experienced clinician who has worked with persons with autism spectrum disorder, how does the clinician perceive an autism diagnosis affects the individual in terms of self-esteem? Participants varied in their responses, with overwhelming responses that led to an “it depends on some factors” response. One issue that emerged was that self-esteem is dependent upon the individual’s environment and their level of functionality and self-perception. A participant stated that levels of functionality also affect people’s perception of themselves in the world. These perceptions can be causality for self-esteem issues, perceived or actualized. One participant said, “… diagnosed individuals become depressed, and their self-esteem drops.” This interview question is also important in answering the first research question because it is the antithesis of what neurodiversity proponents want to build.

IQ3 - How does the clinician perceive the concept of neurodiversity? From the data, participants view the concept of neurodiversity as a positive one. Some comments were “…this is a great concept…”, “…this term makes sense…”, “I see neurodiversity as [leading] towards a more strengths-based approach.” Participants widely received the concept of neurodiversity. This question helped me ascertain if the participant understood the concept of neurodiversity in general terms, which is necessary to answer the first research question accurately. The clinicians interviewed overwhelmingly were able to give accurate descriptions of the concept.

RQ2: What are clinicians’ impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into

support groups? The following three interview questions served as tools for me to answer the second research question posed above. Participants stated that there was potential for social change as the notion can build up self-esteem and autonomy. An important theme was that some participants believed that the cognitive level of the individual could affect the impact of neurodiversity.

IQ4- ***Does the clinician believe the concept of neurodiversity can influence persons on the autism spectrum perceive their diagnosis?*** Participants overwhelmingly agreed that the concept of neurodiversity could change the way people with HFA feel about their diagnosis. One participant stated that "…even incremental changes should mitigate negative perceptions." Another participant stated that it could take a while to retrain the thought process in terms of his or her self-perception. A participant stated that persons on the autism spectrum could not comprehend the concept, and, therefore, would not change the way a person with HFA feels about their diagnosis. Another important concept was that neurodiversity is still a label. This interview question was important for me to ask because it asks if the notion of neurodiversity may help individuals with HFA feel different about their diagnosis.

IQ**5-** ***Does the clinician believe the concept of neurodiversity will hurt or hinder autonomy of individuals with ASD?*** Participants overwhelmingly ascertained that the notion of neurodiversity would help autonomy of individuals with ASD. One participant stated that the concept could "hinder our understanding of them." Another participant stated that …" the concept will help individuals individuate themselves rather than see themselves as part of a misunderstood group." Participants interviewed agree that autonomous individuality can benefit from the notion of neurodiversity.

IQ6- ***Does the clinician believe the concept of neurodiversity will hurt or hinder self-esteem of individuals with ASD?*** From the participants I interviewed, the overwhelming conclusion was that clinicians believe that the notion of neurodiversity will help self-esteem in individuals with ASD. A participant stated, "Intuitively, I believe it will help." One person alluded to the notion that personality and level of functionality are a factor. Another important comment was that self-esteem as it relates to neurodiversity could also come from the extrinsic view of individuals on the autism spectrum as people can become more accepting of those with HFA. This notion helps answer the second research question because the growth of self-esteem is an avenue towards social change.

RQ3: What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups? I used the last two interview questions below, to answer this research question. Clinicians' thoughts regarding the implementation of the neurodiversity concept into support groups are positive. I reached data saturation, as the consensus was overwhelming.

IQ7- ***How does the clinician consider persons with HFA will feel about the notion of neurodiversity?*** Participants overwhelmingly agree that persons with HFA will embrace and accept the concept. Two people interviewed thought that some individuals might not understand the concept and that cognitive impairment would get in the way. Another participant stated that he or she was indifferent and that it depends on the person's personality. One participant stated, "they will probably agree with it… agree they do not think like most people, but they do not need to be fixed." This interview question helped me to answer this research question because how a clinician believes individuals with HFA will react to the notion is important to know if they believe if it will benefit the same population when implemented in support groups.

IQ8- Does the clinician believe the concept of neurodiversity will influence adults with HFA's well-being when implemented in the domain of support groups? Participants again overwhelmingly stated that the idea of neurodiversity would influence adults with HFA when implemented in the domain of support groups. One person stated that when grouped together, participants of these support groups will have an opportunity to share ideas and will help them to "think outside the box." The responses from this interview question helped me to answer the third research question because it answers it directly.

Summary

In chapter 4, I discussed some items related to this study. The discussion began with details regarding the pilot study followed by the setting of the interviews as well as the demographics of the participants. Procedures outlining details of the data collection process ensued including the timeframe, information management, bias controls, unusual circumstances, and data analysis procedures. I discussed evidence of trustworthiness such as credibility, transferability, dependability, and confirmability.

In this chapter, I focused on the results of the study. I posed three research questions, RQ1: How do clinicians perceive the neurodiversity concept? RQ2: What are clinicians' impressions towards a potential for social change in the lives of persons with HFA by implementing the neurodiversity concept into support groups? RQ3: What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups?

Of the clinicians interviewed, the perception of neurodiversity overall is a positive one. Clinicians do believe that social change is possible in the lives of adults with HFA by implementing the neurodiversity concept into support groups. Overall, the sentiment is that the implementation of the notion of neurodiversity into support groups for adults with HFA is that it could be beneficial.

In Chapter 5, I will discuss key findings, limitations to the study, and recommendations for future research. I will also discuss the future implications of this study and remark on how the findings are an addition to the knowledge in the field. Chapter 5 is the concluding chapter of this dissertation.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

In this study, I sought to determine how clinicians perceive the potential use of the concept of neurodiversity in support groups for adults with HFA. This study was qualitative in nature and I used a constructivist, grounded theory methodology. The primary research questions were: (a) How do clinicians perceive the neurodiversity concept? (b) What are clinicians' impressions regarding a potential for change in the lives of persons with HFA through the implementation of the neurodiversity concept in support groups? (c) What are clinicians' thoughts regarding the implementation of the neurodiversity concept in support groups? I intended this study to be the first step to determining the potential efficacy of another support methodology for adults with HFA.

The key finding was that clinicians had an overwhelmingly positive attitude when asked their thoughts regarding the notion of incorporating neurodiversity into support groups for adults with HFA. The study participants were optimistic about the notion of neurodiversity in general, and were also hopeful that the notion of neurodiversity could help change the way persons with HFA view themselves.

Interpretation of the Findings

As of 2015, much of the literature relating to the neurodiversity concept has focused on children on the autism spectrum. The findings from this study contribute to the knowledge base for clinicians in this field and provide new data on the concept of the neurodiversity and how it might inform a new support group modality for adults with HFA.

Relationship to Literature

As previously discussed in chapter 2, persons with HFA have a number of difficulties when it comes to making their way in the world including social skill deficits that can hinder an individual’s ability to find gainful employment, have meaningful personal relationships, and that can affect their overall quality of life (Barneveld et al., 2014). Human beings are social animals by nature, and in order to thrive, they need to feel accepted and have a sense of belonging within their communities (Barneveld et al., 2014).

Stigmatization and cultural assumptions exist within society that hinders neurotypical people from accepting persons with ASD (Jantz, 2011; Jurecic, 2007). This mindset affects those with ASD and leads to anxiety, depression, and at times, suicide (Kapp et al., 2013). From the interviews I conducted with clinicians in the field, I found that the stigmatization is still prevalent in U.S. society, although some clinicians believed that the stigma is dwindling, and that acceptance is increasing.

In 2016, a number of therapeutic modalities exist, though most focus on children with ASD. These measures include, but are not limited to (a) medications, (b) therapeutic diets, (c) therapeutic measures such as applied behavioral analysis (ABA), (d) speech therapy, and (e) social skills training (Cascio, 2012; Jantz, 2011). Neurodiversity is a relatively new modality, but some research exists with regard to how the concept benefits children (Cascio, 2012; Magnuson & Constantino, 2011; Roberts et al., 2011; Schreiber, 2011). Before this study, no known research existed that focused on adults with HFA and the implementation of the neurodiversity concept into support groups (Jaarsma & Welin, 2012; Kapp et al., 2013; Mackenzie, 2011; Mackenzie & Watts, 2011).

Relationship of the Findings to Theoretical Frameworks

For the theoretical framework of this study, I used Tuckman's (1965) stage model of group development, and Salzer's (2002) peer support model. Tuckman's stage model of group development (Tuckman, 1965) is applicable to the findings because it describes how these support groups may form and develop. Salzer's peer support model (Salzer, 2002) is applicable to the findings because it illustrates how participants of these support groups can build comradery and help each other.

In this study, I interviewed clinicians in the field to ascertain their thoughts regarding the incorporation of the concept of neurodiversity into support groups for adults with HFA. Overwhelmingly, the consensus was that the practice might pose some degree of benefit to the population. Findings from this study add to the knowledge base in the field. Major themes for this study follow.

The first research question (RQ1) was: How do clinicians perceive the neurodiversity concept? The major themes that emerged from responses to this question were that the concept of neurodiversity could mitigate negative perceptions and build positive support systems. The study participants believed that the concept of neurodiversity could increase acceptance both internally and externally, and could thwart negative stereotypes.

The second research question (RQ2) was: What are clinicians' impressions of the potential for change in the lives of persons with HFA through the implementation of the neurodiversity concept into support groups? The major themes that emerged from responses to this question were that the notion of neurodiversity could mitigate negativity and improve autonomy. This change in beliefs can change the way persons with HFA and their family members view the diagnosis of ASD.

The last research question (RQ3) was: What are clinicians’ thoughts regarding the implementation of the neurodiversity concept in support groups? Major themes that emerged from this research question were that the practice could potentially make an impact for persons on the autism spectrum because it could invoke positive perceptions of neurodiversity. Clinicians believed that this concept could help with self-esteem.

Limitations of the Study

A limitation of this study was its sampling strategy. I used a convenience sampling technique, recruiting participants on LinkedIn. This convenience sampling technique limited the sample size to those in the United States who use LinkedIn. Another limitation was that the data collection consisted of only online chat interviews. Some potential participants may not have been comfortable using this format and may have preferred a verbal exchange or an emailed survey. Furthermore, the sample was limited to only clinicians at the masters and doctoral levels. For a more extensive study, a larger sample size comprised of various professionals from all aspects of ASD therapeutic modalities, such as but not limited to occupational therapists, speech language pathologists, applied behavioral analysis therapists, would be beneficial. Another limitation of this study is that the focus was on persons with HFA, and thus may not be relevant to others on the autism spectrum.

Recommendations

One suggestion for future research would be to separate the participants demographically. By dividing participants by demographics, researchers could determine whether other factors, such as socioeconomic or geographic factors, influence the responses of participants. Because this study focused on just clinicians in the field, additional detailed studies relating to the way teachers, therapists, others in the mental health or educational field feel about neurodiversity would be beneficial. A study of persons with HFA in support groups that use the neurodiversity concept would contribute to the knowledge in the field. This study could gather data from participants before and after participation to test the effectiveness of using neurodiversity in support groups for adults with HFA. The researcher would collect baseline data relating to social skills and well-being before the implementation of the neurodiversity based modality. After the implementation of the concept, the researcher would again gather data and would analyze the information to see how perceptions have changed. Because the primary finding was that clinicians had a positive outlook on the neurodiversity concept, my study clearly points to the need for further exploration of the neurodiversity concept.

Implications

The potential implications of this study are that the notion of neurodiversity could potentially open the door for more research regarding the usefulness of neurodiversity as a therapeutic implement. Persons on the autism spectrum have some difficulties coping in a neurotypical world. Current research suggests that by applying the concept of neurodiversity in support groups, persons on the autism spectrum may grow in self-esteem and confidence.

Implementing the neurodiversity concept in support groups for adults with HFA has the potential to make positive social change. By examining the thoughts of clinicians who work with persons with HFA, I took the first step in broadening the knowledge of the field regarding the potential implementation of this new therapeutic modality (Cascio, 2012). Persons on the autism spectrum are at- risk for societal stigma and being ostracized from their communities (Magnuson & Constantino, 2011). Neurodiversity can help clinicians turn maladaptive notions around and help retrain both individuals on the autism spectrum and persons within the community.

Positive social changes begin with the individual. The concept of neurodiversity can change the way an individual feels about him or herself (Magnuson & Constantino, 2011) and can also help thwart maladaptive perceptions leading to depression and anxiety in individuals. The neurodiversity concept can help individuals understand their innate talents and the goals they can achieve.

Families can also benefit from the incorporation of the concept of neurodiversity into support groups for adults with HFA. One main benefit is that families can have another way to redirect maladaptive notions in their loved one’s mindset to help mitigate self-esteem and depressive episodes (Richa et al., 2014). Neurodiversity can also help family members view their loved one as merely neurologically different, rather than disabled or defective.

At the organizational level, incorporation of the neurodiversity concept into support groups for adults with HFA can lead to higher levels of acceptance (Syriopoulou-Delli, 2010). This acceptance can also help those who would not otherwise seek out treatment because of the stigmatization of treatment, thus bringing about more business to the organization providing services. This practice can also lead to more research opportunities, and thus more publications and presentations as research on the topic increases.

This concept can also lead to improved levels of accepting attitudes toward autism, which, in turn, can help individuals on the autism spectrum attain higher rates of acceptance in the community. This higher rate of acceptance can lead to more opportunities such as employment, personal relationships, and other forms of community inclusion (Barneveld et al., 2014). This integrative mindset can help individuals feel as though they are a part of the community in which they live, which can lead to higher rates of self-esteem and mitigate depression (Couser, 2011; Totsika et al., 2010).

Conclusion

Individuals with HFA face a number of difficulties. One of these difficulties is stigmatization and ostracization from the community. Rejection from one's community can cause lasting harm to the individual, and can hinder an individual's ability to flourish and progress. One aspect of this harm is that the poor treatment of a person by others can have an effect on how that individual views his or her self.

The concept of neurodiversity is a new modality for potential treatment of persons on the autism spectrum. Proponents of this concept hold the position that persons with neuroatypicality should have the opportunity for full social inclusion. Society can change its understanding of and behavior toward those with autism spectrum disorder. In turn, those with HFA will learn to love and appreciate themselves. Individuals, regardless of their innate ability or disability, should be uplifted and praised for their unique abilities. If society focuses on an individual's abilities rather than on their disabilities, as does the neurodiversity concept, there is a significant opportunity for social change that will benefit all.

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Appendix A: Consent Form

CONSENT FORM

You are invited to take part in a research study of the concept of neurodiversity and whether its incorporation into support groups would be beneficial in the eyes of clinicians. The researcher is inviting clinicians experienced in working with individuals with autism to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Gwendolyn Barnhart, who is a doctoral candidate at Walden University.

Background Information:
The purpose of this study is to ascertain how experienced clinicians in the field perceive neurodiversity, and the incorporation of this concept in support groups for persons with autism could benefit those support group participants.

Procedures:
If you agree to be in this study, you will be asked to:

- research neurodiversity for at least one hour using a web browser of your choice.
- participate in an online chat meeting, at such time the researcher will interview the participant. This should not take any longer than an hour.

Here are some sample questions:

- What thoughts does the clinician have with regard to stereotypical behaviors and stigma that may surround an ASD diagnosis, even for individuals who are high functioning?
- As an experienced clinician who has worked with persons with autism spectrum disorder, how does the clinician perceive an autism diagnosis affects the individual in terms of self-esteem?
- How does the clinician perceive the concept of neurodiversity?
- Does the clinician believe the concept of neurodiversity can influence the way persons on the autism spectrum perceive their diagnosis?
- Does the clinician believe the notion of neurodiversity will help or hinder autonomy of individuals with ASD?
- Does the clinician believe the notion of neurodiversity will help or hinder the self-esteem of individuals with ASD?
- How does the clinician consider persons with HFA will perceive the notion of neurodiversity?
- Does the clinician believe the concept of neurodiversity will influence the well-being of adults with HFA when implemented in the domain of support groups?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at Walden University will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue due to learning a new modality for treatment. Being in this study would not pose a risk to your safety or well-being.

This study has significant benefits, as the results are the first step in incorporating neurodiversity into support groups for persons with autism spectrum disorders.

Payment:
The participant will not receive any payment or special gifts as a result of participating in this study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by remaining the sole property of the researcher, which will be stored in an encrypted file on her personal computer. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email; xxx@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-xxx-xxxx. Walden University's approval number for this study is 08-6-15-016080 and it expires on August 25,2016**.**

Please print or save this consent form for your records.

Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. I also state that I meet the eligibility criteria. By replying to this email with the words, "I consent", I understand that I am agreeing to the terms described above.