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Communication Training and Nonemergency Transportation Driver Perception of Challenging Behavior

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Walden University

College of Social and Behavioral Sciences

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Priscilla Wright

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Walden University
2017

Abstract

Communication Training and Nonemergency Transportation Driver Perception of Challenging Behavior

by

Priscilla Wright

MEd, Virginia State University, 2005

BA, Virginia Union University, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology

Walden University

August 2017

Abstract

Nonemergency transportation drivers play a critical role in helping individuals with Intellectual Disabilities (ID) gain access to community integration opportunities. Challenging behaviors can limit access to enrichment opportunities and possibly increase the likelihood that individuals with ID will be isolated from community enrichment activities. The purpose of this study was to determine if positive behavior support training improved nonemergency transportation drivers' perceptions of challenging behaviors displayed by individuals with ID. For purposes of this study, perception was defined as staff (driver) beliefs about the causes of challenging behavior. A convenience sample of 52 nonemergency transportation drivers was chosen from a Logisticare provider list using local zip codes. Data were collected using the Challenging Behavior Attribution Scale (CHABA) before and after training using the Positive Behavior Support Curriculum 2nd Edition. A 2-way ANOVA revealed no statistically significant differences in perception before or after training. Analysis of the data indicated that training had no impact on driver perception of challenging behavior. The drivers who participated in this study appeared to have positive perceptions of challenging behavior, and, as a result, no statistically significant results were found. Perhaps the results of this study might lead community organizations that support individuals with ID to include transportation drivers in team meetings when there are concerns regarding challenging behavior. The drivers' positive perceptions regarding challenging behaviors may be an asset to support teams in developing positive behavior support strategies that improve the quantity of life for persons with ID.

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Dedication

This dissertation is dedicated to my Lord and Savior. For he has been beside me every step of the way, when I thought it was impossible He made it possible. I would also like to dedicate this work to my niece Maliyah Wright, may this inspire you to believe that anything is possible. I would like to thank my parents and brother for being there and giving me encouraging words to move forward. I want to thank my friends who have supported and prayed for me. I would also like to think my cousin Yvette, whose shop I spent countless hours in completing this work. Lastly, I'd like to thank Independent Capacity Systems Inc. and Diamond Transportation Services Inc. a Paratransit Company for their assistance in this project.

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Chapter 1: Introduction to the Study

There are 4.6 million people in the United States living with an intellectual disability (ID; Resources, n.d.). An ID is a disability characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills (Definition of Intellectual Disabilities, n.d.). Due to impairments in adaptive functioning, individuals with ID may rely on others to provide the care that they need to complete activities of daily living. According The ARC, activities of daily living include, but are not limited to, the following: conceptual skills: receptive and expressive language, reading and writing, money concepts, and self-direction; social skills: interpersonal, responsibility, self-esteem, follows rules, obeys laws, is not gullible, and avoids victimization; practical skills: personal activities of daily living such as eating, dressing, mobility, and toileting; instrumental activities of daily living such as preparing meals taking medication, using the telephone, managing money, using transportation, and doing housekeeping activities; and occupational skills; maintaining a safe environment. Impairments in adaptive and intellectual functioning may make it difficult for those who support individuals with ID to understand their wants and needs. Conversely, this is equally frustrating for the individual. The individual's response to frustration may be to exhibit challenging behaviors.

According to the Centre for Developmental Disability Health Victoria (2005), challenging behaviors are behaviors of such intensity, frequency, or duration that the physical safety of the person or others is placed in danger. Challenging behaviors may manifest as physical or verbal aggression, self-injurious behavior, noncompliance with

directives, social isolation, or repetitive behaviors. Challenging behaviors can communicate a need for attention, to escape, for pain attenuation, and/or sensory deprivation . Individuals with ID have difficulty expressing their needs in a way that others can understand, and as a result, may express this frustration through challenging behaviors. These behaviors may have an impact on the quality of life experienced by the individual by limiting inclusion in community activities.

The need to understand challenging behaviors and shift perceptions toward individuals living with IDs has become paramount as there is a migration toward community-based supports for individuals with ID. An integral component of community inclusion is transportation. Having access to transportation provides opportunities for individuals with ID to work, attend doctor's appointments, visit family, and other activities that provide an enriching life. As individuals with ID become members of the community, those who provide transportation services should be trained on how to identify and work through difficult behaviors should they occur. Training on communication and functionality of behavior may affect increasing positive perceptions regarding challenging behaviors amongst nonemergency transportation drivers. In addition, training may help to create an understanding of the ways in which individuals with ID may communicate a need and decrease behavioral emergencies during transportation.

Significance

Researchers have predominately focused on direct care staff and their perception or beliefs of challenging behaviors. Bigby, Clement, Mansell, and Brown (2009) and

Windley and Chapman (2010) discussed training needs and direct care staff attitudes toward working with individuals with ID. Direct care associates play a part in the daily care needs of this population; however, nonemergency transportation drivers play a role in the daily lives of persons with ID. Drivers provide access to community inclusion programs and medically necessary services for persons with IDs. These services help to increase the quality of life for many persons. According to Hall (2009), transportation influenced social inclusion amongst individuals with ID ages 18-35. To optimize the quality of life of individuals with ID, all support partners or persons supporting the individual should have knowledge of how the individual communicates a need. Support partners should know what subsequent behaviors may manifest if the need or want is not met or understood. This includes transportation drivers.

To date, few researchers have addressed the role of the transportation driver as a member of the individual's essential support team. By not including the driver as a part of the individual's essential supports, other team members may not have the information available to write a behavior plan. To address this missing information, the results of this study may help organizations use a systemic approach for addressing behavior.

Systemic approaches emphasize the necessity of gathering information from all those who support the individual. According to Dr. Joan Beasly (2013), systemic approaches are most productive when the entire system is accounted for. Researchers have not addressed transportation drivers, their perception of challenging behaviors, or the driver's role as an integral part of the individual's system. There is no research on the link between transportation driver perception and its usefulness in addressing challenging

behaviors across systems. Transportation drivers are often dismissed as an integral part of the individual's essential supports. Essential supports are those persons who provide routine care and who know the individual best.. A transportation company owner stated, "Drivers have information on individuals that others don't see, such as an individual knowing his way home, or what a certain individual's likes or dislikes" (P. Thebaud, personal communication, August 1, 2013). Including transportation drivers as members of the individual's essential support could help the drivers not only understand the individual's behaviors and diagnosis, but also provide drivers information concerning behaviors that others may not notice.

Conceptual Framework

Transportation drivers are one part of the individual's supports that are often negated as they pertain to inclusion in the care of an individual with ID. To examine a part of the individual's supports, systems theory was chosen as the theoretical framework for this study. According to systems theory, parts of a whole are greater working together in unison; no one part is greater than the whole. According to Minuchin (1974), as individual positions change within the context of systems theory, each individual experiences change. Minuchin asserted that each member of the system is affected by problems and experiences of individuals within the system. Each member of the system plays a different role in its outcome.

Members of the system, in conjunction with circumstances, influence the degree the system opens its boundaries for support or closes those boundaries. Social systems, or the systems associated with this study, are not open or closed. Social systems open their

boundaries to receive or dispel information to achieve equilibrium (Reitzer,2005). Transportation drivers are closed off from the larger system, resulting in limited training opportunities and faulty perceptions of challenging behavior. Such issues occur when the lack of information exchanged between transportation drivers and the individual's system contributes to these perceptions. The utility of including support partners, such as direct support staff, in training applies to challenging behaviors and ID (Gore & Umizawa, 2011; Jerome, Kaplan, & Sturmey, 2014; Kemney, 2013; Zijlmans, et al., 2011). Despite the relative support for training direct support associates, there is little research on the inclusion of nonemergency transportation drivers in the essential supports of individuals with ID.

Nature of Study

A quantitative, quasi-experimental design was the most effective means for determining if communication training has a statistically significant difference on the perception of nonemergency transportation driver perception of challenging behaviors. To examine the statistical differences between training and perception of challenging behaviors, I followed a pre and posttest design. Participants were asked to complete the Challenging Behavior Attribution Scale (CHABA) prior to receiving training using the Positive Behavior Supports Curriculum and then again immediately after training concluded. According to Hastings (2002), this scale was designed to measure a range of beliefs about challenging behaviors. Because new drivers, those with less than 2 years of experience, are new to their career, I believed that those drivers may hold certain

perceptions that were different than veteran drivers. To understand the differences in perception amongst new and veteran transportation drivers, I used a *t* test.

Research Questions and Hypothesis Statements

1. Does communication training promote positive perceptions of challenging behavior amongst nonemergency transportation drivers based on the composite CHABA scores?

$H_1$0: There is no significant difference in perceptions amongst nonemergency transportation drivers, based on the composite CHABA scores, before and after completing communication training.

H_1a: There is a significant positive difference in perceptions amongst nonemergency transportation drivers, based on the composite CHABA scores, before and after completing communication training.

2. Based on the CHABA rating scales, are there significant differences in perception between new and veteran drivers?

$H_2$0: There is no significant difference in perceptions, regardless of before or after training and using the composite CHABA scores, between new and veteran drivers.

H_2a: There is no significant difference in perceptions, regardless of before or after training and using the composite CHABA scores, between new and veteran drivers.

3. Are there significant differences in perception of challenging behavior between new and veteran drivers after training, based on the CHABA rating scale?

$H_3$0: There is no significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores.

H_3a: There is a significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores.

Approach for the Study and Implications for Social Change

The organizations were responsible for delineating staff to facilitate the training. The facilitators taught 40 of the 25 modules in Positive Behavior Support Training Curriculum, 2nd edition. The modules are as follows: defining behavior; positive reinforcement and punishment; negative reinforcement; and identification of antecedents, behaviors, and consequences. The training was voluntary to allow a greater participant pool. The Positive Behavior Support Training Curriculum was selected because it supplies knowledge and understanding to direct support staff with no prior exposure to positive behavior supports.

Through the study, I sought not only to increase positive perceptions amongst nonemergency transportation drivers, but also to promote social change. Nonemergency transportation drivers are not required to have familiarity of the population that they are servicing. Nonemergency transportation drivers are required to have a valid driver's license and first aid/CPR training. These drivers transport individuals with various mental and physical conditions to support programs, rehabilitation centers, hospitals, private residences, and group homes. Approximately 6.5 million Americans have a diagnosis of some type of ID ("Make a Difference",2017). Given this prevalence, nonemergency transportation drivers will interact with this population. Individuals with ID may

communicate a need or want differently than others, resorting to challenging behaviors to have the need or want addressed. This can lead to frustration on behalf of the individual as well as the driver.

Logisticare is the largest Non-Emergency Transportation (NEMT) agency in the United States. Logisticare does not mandate driver training in the area of mental health, communication, and ID. Logisticare(2017) provides 65 million rides people per year in 39 states. According to Logisticare (2017), drivers receive passenger sensitivity and defensive driving training. Drivers lack training on the ways in which individuals with ID may communicate a need. This lack of training can create and promote negative perceptions regarding challenging behaviors amongst drivers. Increasing knowledge and understanding with regard to challenging behaviors may help to reduce driver attrition and client abuse.

Although the results of this study proved no statistically significant inferences, information contained within the study can help organizations implement consistent training programs on positive behavior supports. Additionally, in this study, I found that drivers are not consistently afforded an opportunity to provide and receive input from support teams. This study was based on systems theory, which takes into account both internal and external factors that contribute to present behavior. Transportation can be considered an external factor and a part of the individual's system at large. Transportation drivers are rarely invited to support meetings or seen as an integral member of an individual's support team. Hopefully, organizations will use the information presented in

this study to support the inclusion of drivers in support meetings, especially when there are concerns regarding behavior during transportation.

Definition of Terms

Challenging Behavior Attributions Scale (CHABA): The CHABA was established as a method for measuring staff attributions toward individuals with IDs that could facilitate research in this area (Hastings, 1997). The 33-item scale contains statements relating to the five causal models: learned behavior (six items, three items for learned positive and learned negative), biomedical (six items), emotional (six items), psychical environment (eight items), and stimulation (six items).

Day support: Center that provides individuals with the opportunity to participate in community engagement activities and learn prevocational skills.

Direct support associate: A paid staff member who provides direct one-to-one assistance in supporting the individual with the task of daily living to include, but not limited to, dressing, bathing, feeding, and house hold chores.

Essential supports: Supports are resources and strategies that aim to promote the development, education, interests, and personal well-being of a person and that enhance individual functioning (Luckasson et al., 2002, p. 151). For the purposes of this study, this also included persons who provided direct support to the individuals.

Individual: Person-centered term referring to a person living with an ID.

Positive Behavior Support (PBS): An applied science that uses educational methods to expand an individual's behavior repertoire (Carr et al, 2002).

New driver: Drivers who have 1 year or less providing nonemergency transportation to individuals with ID.

Nonemergency transportation driver: A driver who provides transportation for individuals to medical appointments or to and from day support centers.

Support team/treatment team: Persons and organizations who meet regularly to provide strategies and interventions for individuals with IDs to maximize their quality of life.

Veteran driver: Drivers who have 2 or more years of service providing transportation to individuals with ID.

Summary

Nonemergency transportation drivers play a role in providing community integration for individuals with ID. Despite their role, drivers are often not included as an essential support. As a result, there are limited training opportunities for drivers to learn how to support individuals with ID who display challenging behaviors. I used a quantitative, quasi experimental design to determine if communication training had an impact on driver perception of challenging behavior. According to the results of the study, there was no statically significant differences regarding training and driver perception, however; I found that drivers are not consistently taking part in support teams nor do they receive consistent training in the area of positive behavior support. Hopefully, the work expressed in this study may spark a discussion about including drivers among the essential supports for individuals with ID. Chapter 2 provides a review of the relevant literature.

Chapter 2: Literature Review

Introduction

The Commission on Accreditation of Rehabilitation Facilities (2015) suggested that community integration helps those with ID optimize their personal, social, and vocational competencies and to live successfully in the community. To achieve community integration success, persons with ID may rely on direct support staff to provide transportation to community activities, medical appointments, and vocational opportunities. It is essential for personnel transporting individuals with disabilities to understand the characteristics of the individuals with disabilities, be aware of the special considerations that influence services, and develop driver programs that assist with decision making on a daily basis (Bluth, 2000).

Transportation is considered important for the quality of life for those with ID; moreover, persons with multiple physical and cognitive disabilities are dependent on others for the gratification of their needs (Petry, Maes, & Vlaskamp, 2005). Bringing all persons involved in the care of the individual with the intent of sharing information and reaching a consensus on how to move forward, particularly when people within the system have reached an impasse, is called network training or systemic support (Jenkins & Parry, 2006). System collaboration helps to ensure the success of individuals with intellectual disabilities (Beasly,2013). In this chapter, I discuss systemic and positive behavior supports as theories for addressing challenging behavior. I also review the literature pertaining to challenging behavior and staff training needs.

Search Strategy

I used Academic Search Complete, Educational Resources Information Center, Education Research Complete, Health and Psychological Instruments, ProQuest Health, Medical Complete, PsycArticles, PsycBooks, PsycCritiques, PsycExtra, Psychiatry Online, PsycInfo, and PsycTest to search for resources for the literature review for this study. The search criteria included staff training and challenging behavior exhibited by persons with IDs. Approximately 120 full-text articles and abstracts were reviewed containing the following keywords: *systemic theory, challenging behavior, intellectual disability, quality of life, staff training, communication, direct support staff, behavior support,* and *staff perception.* The following is the set of inclusionary criteria used to evaluate articles for the literature review: Peer-reviewed articles on ID and staff training were included, and peer-reviewed articles on ID and challenging behavior. Research studies on ID and staff training were included, as well as those that concentrate on quality of life and ID. Direct support staff, communication studies, and research were included in the literature review. Lastly, peer-reviewed articles on transportation and systems theory were included. Exclusionary criteria included the following: articles not focused on ID and articles on challenging behavior where the primary focus was mental illness.

Conceptual Framework

The conceptual framework of the study will begin with the broader concept of General Systems theory (GST) and then move toward the more specific attributes of Systems theory which are applicable to this study. GST was developed to explain the

complex interactions of all types of systems with the understanding that the actions of subsystems in groups will affect other subsystems (Neukrug, 2003). Von Bertalanffy (1968) the father of GST, claimed that studying the smallest elements of phenomena was disadvantageous because that way, an individual loses sight of the whole, which is often greater than the sum of the parts. Phenomena could be best understood by using a multidisciplinary approach, with each discipline contributing its own theory, concepts, and formulas. Von Bertalanffy saw that real-world systems are open; they interact with their environments and acquire new qualitative properties. Traditionally, systems are thought of as either open or closed. An open system is in a constant state of importing and exporting information that is viable to its sustainability. A closed system maintains impermeable boundaries and forgoes outward exchange. An isolated concrete living system is, over time, potentially unsustainable, as the internal components of the system become depleted (Encyclopedia of Social Theory, 2007). Moreover, social systems are neither open nor closed. According to the Encyclopedia of Social Theory (2007), many systems are alternatively open and closed. The social system typically does not leave its boundaries permanently opened or permanently closed; the social system opens its borders to inflows of energy and information that it needs to function properly and closes them to energy and information flows that could impede its functioning.

Open and closed systems vary in their internal structures. Closed systems reach maximum isolation as the system closes itself off to the inflow of resources required for sustainability (Barnett,2014). Maximum isolation is known as system death or entropy (Barnett, 2014). Social systems routinely display an increase over time in organizational

structure and complexity that is indicative of entropy decrease rather than increase. Social systems are complex and have the capacity to change and evolve over time to reach homeostasis rather than equilibrium (Barnett, 2014). Equilibrium is a state of a system when the self-reinforcing characteristics of a state are visible (Barnett, 2014). A system that has reached maximum entropy has achieved equilibrium and is stable because it is unchanging. Social systems move toward homeostasis. Homeostasis represents cycles of equilibrium and disequilibrium as the system moves or fluctuates in response to change (Johnson & Owens, 2006). Social systems change in response to goals in the sense that they are stable in the face of changes and are said to protect underlying values, norms, and qualities (Hirschorn, 2003).

Human systems do not always return to their original conditions, but move toward new patterns (Barnett, 2014). Social systems may move toward new patterns of homeostasis through both planned and unplanned methods or spontaneous order. Spontaneous order occurs when a system reaches equilibrium on its own. As systems change, their complexity may change as well.

Individuals with ID may experience complex changes to their systems of support. This may include changes to caregivers, day support providers, transportation services, or changes to medical/behavior providers. Individuals with ID are often dependent on caretakers to meet their daily needs (Wilson, 2010). These individuals may respond to the changes in their system through displays of challenging behavior. Interruptions of routines or preferred sequence of task have been reported to evoke problem behavior (Sigafoos, 2006). As the individual strives to exert his or her independence, the system

may respond in ways that result in biases and prevent the acknowledgement of personal value for many within the system (Wilson, 2010). With the individual striving to maintain homeostasis and support partners striving to reduce the frequency and intensity of the challenging behavior, a hierarchy within the system is formed.

Social hierarchies can be rigid, stable, or fluid depending on context (Mooney, Peragine, Hathaway, & Holmes, 2014). Hierarchies are necessary within systems to maintain order; moreover, these hierarchies exist with an understanding of the equity of the total system and function to maintain order while respecting value and encouraging growth, allowing all participants to rise within the hierarchy as development of abilities and knowledge increases (Wilson, 2014). All systems do not respond in this way, which may result in abuse of power. These abuses of power are often the result of faulty perceptions and stereotypes.

Problems within the system may exist as the result of internal and external factors. Minuchin (1974) stated that the mind views problems extracerebral as well as intracerebral; whereas, the pathology (challenging behavior) may exist within the patient, in his/her social context, or in the feedback between the two. Problems that exist within the system might be known from a surface perspective, but not to the extent as to how the environment sustains the challenging behavior. Systems are structured in subsystems with boundaries; their members shadow steps they do not see (Family Therapist Profiles, 2015).

Assessing limitations amongst the system in predicting, working through, and communicating the challenging behavior should address external factors.

Psychoeducational programs that emphasize systemic consultation should be made available to caretakers of persons with neurological impairments as a routine part of multidisciplinary care (Carr, 2000).

When challenging behaviors are displayed, the individual's system may view the behavior as the individual's problem rather than a systemic issue to be addressed. If this view is adopted, a polarizing split can occur, separating the individual from his or her system. The system holds one set of beliefs about the behavior, and the individual holds another set. This can lead to a compromised quality of life for the individual. Haydon (2009) suggested that individuals with IDs often tell stories of feeling stared at and feelings of rejection by members of the service system. Systems that support individuals with ID must undergo a paradigm shift where the behaviors of the individual are related to gaps in service delivery. Organizations that support individuals with ID may note positive service outcomes when the whole system is addressed versus treating parts of the whole.

Transportation drivers should be considered a part of the individual's system of support and should be included in meetings where behavior protocols are discussed. Gaps exist in the dissemination of information between staff and management concerning behavior management protocols. To date, there are no researchers who have examined the inclusion of transportation drivers and how their perceptions affect service delivery. I aim to illustrate the need to include transportation drivers amongst the system of support for individuals with ID.

Challenging Behavior

Historically, challenging behavior, formerly known as problem behavior, was seen as a problem belonging to the individual. Medical, psychometric, and military metaphors have been used to describe challenging behavior. According to Farrell, Shafie, and Salmon (2010), metaphors associating challenging behavior with terms such as prevalence rates, measurement scales, and rules of engagement objectify the behavior as a problem of the individual and, in doing so, oversimplify challenging behavior. The oversimplification of challenging behavior may inadvertently assign blame to the individual without the system identifying its role in maintaining the behavior.

Ultimately, assigning blame to an individual for the behavior can create social isolation and impact the quality of life of that individual. Maslach (1978) noted that individuals with disabilities may be seen by staff as deserving of their problems and are often blamed for their victimization, resulting in the deterioration of the quality of services that they receive. Shifting this paradigm so that it considers the relationships between staff, individuals, and the environment as contextual factors that support or decrease the frequency of challenging behavior may prove critical to the system's functioning.

Dilworth, Phillips, and Rose (2010) included the environment in defining challenging behavior and suggested the latter occurs as a result of complex interaction between individuals and their environment. Challenging behavior has been defined as a behavior of such intensity, frequency, or duration that the physical safety of the person or others around him or her is placed in jeopardy (Emmerson & Cummings, 1998).

Challenging behavior is likely to limit or deny access to the use of ordinary community facilities (Emerson et al., 1998). How a direct care staff defines challenging behavior could be seen as a factor influencing staff intervention. Staff is more likely to view a behavior as challenging when that behavior is directed toward the environment (Noone, Jones, & Hastings, 2006).

Functions of Challenging Behavior

Researchers have studied the functions or reasons behind the challenging behaviors among persons with developmental disabilities (Durand, 2005). Challenging behavior problems may manifest in order for a person to receive attention or a tangible item from an adult or caregiver (i.e., external positive reinforcement), escape a social demand or task (i.e., external negative reinforcement), elicit a physical sensation or self-stimulate (i.e., internal positive reinforcement), or reduce physical discomfort or pain (i.e., internal negative reinforcement; Medeiros, Rojahn, Moore, & Ingen, 2014).

Internal Negative Reinforcement

Internal negative reinforcement is a potential cause for challenging behavior. Psychiatric conditions are considered as internal negative reinforcement. Symptom exacerbation related to psychiatric conditions positively correlates with challenging behavior. Impulse control, mood dysregulation, and perceived threats (paranoia) underlie most of the aggressive behaviors reported (Tsiouris, Kim, Brown, & Cohen, 2011). Psychiatric morbidity among people with ID is associated with higher levels of challenging behavior. This association is more pronounced for people with severe ID (Felce, Kerr, & Hastings, 2009). Turygin, Matson, MacMillion, and Knonst (2013)

affirmed the positive correlation between challenging behavior and mental illness. There is an association between depression and challenging behavior.

Attention Seeking Behavior

Attention seeking behavior refers to situations where people use excessive or inappropriate behaviors to gain attention. The need for social interaction is positively correlated with challenging behavior. Radstaake et al. (2012) noted that the level of attention received influences the frequency of challenging behavior. Individuals with ID may engage in attention seeking behaviors as a way to gain attention from care staff to complete activities of daily living (Prain et al., 2010).

Escape

Escape is defined as a negative reinforcement paradigm where the client displays challenging behavior to be able to get out of a task of the environment (Matson, Kozlowski, & Worley, 2010). Although an over stimulus may not be apparent, an individual may display an escape behavior as a way of communicating an internal discomfort or pain. Researchers have noted the relationship between challenging behavior and escape as a function of behavior. Swender, Matson, and Mayville (2006) noted the relationship between challenging behavior and escape as a function of escape (internal discomfort) and gastro-esophageal reflux disorder behavior. Many other physical conditions exist where the challenging behavior elevate discomfort. Cerebral palsy is linked to pain and challenging behaviors (Blacher & McIntyre, 2007; Parkes, White-Koning, & Dickinson, 2008; Parkes, White-Koning, & Dickinson, 2008; Winter, Jansen, & Evenhuis, 2011). Moreover, pain might be the cause of challenging behavior

where individuals may engage in self-injurious behavior to alleviate discomfort (Breau, Camfield, & Symons, 2009; Symons, Devine, & Oliver, 2012; Symons, Harper, & McGrath, 2008; Winter et al., 2011).

Aggressive Behavior

Aggressive behavior is an offensive action, or a deliberate attack, directed toward people and/or objects (Rojahn, Matson, & Lott, 2001). Aggressive behavior is associated with negative consequences for an adult with ID, including difficulties integrating and participating in the local community, accessing resources, maintaining social networks, exclusion from services, a breakdown of support packages, diminished self-esteem, and injury to the careers (Cooper et al., 2009). Researchers who discussed prevalence rates and aggressive behavior showed that this behavior is reported between 40% and 51% of the time by direct support staff (Crocker, Mercier, & Lachapelle et al., 2006; Lowe, Allen, & Jones, 2007; Poppes, van der Putten, & Vlaskamp, 2010).

Variations in reports of aggressive behaviors are described as serious or controlled levels presented with multiple topographies (Lowe et al., 2007). Topographies define the behavior and describe what behaviors are occurring (Functions of Behaviour, 2015). There is no single accepted definition of aggression; aggression may refer to a whole range of behaviors from throwing objects around the room to actual bodily harm to other people (Tyrer et al., 2005). For instance, Crocker et al. (2006) described aggression as verbal and/or motor behavior directed toward a person, his or her environment, or others. Luiselli et al. (2001) defined aggression as hitting, pinching, pulling hair, or grabbing the clothes of another person. Emerson et al. (2000) offered a more complex

definition and described aggression as the destruction of a person's immediate living or work environment; a show of behaviors at least once a week that requires the intervention of more than one member of staff to control, places them in danger, causes damage that cannot be rectified by care staff, and causes more than 1 hours' disruption; or a show of behaviors at least daily that causes more than a few minutes of disruption. The variation of definitions can be reconciled as they depend on the perception of the people who are on the receiving end of the behavior (Deb, Thomas, & Bright, 2001).

Staff Perceptions of Challenging Behavior

Staff perception of challenging behavior has its roots in attribution theory. Attribution theory, a social learning theory proposed by Weiner (1985), suggests that people try to determine or make sense of why people may engage in certain activities and behaviors or experience successes. Attribution takes place in three stages. Behavior is observed first. The observed behavior is then defined as intentional or unintentional and then attributed to internal or external factors. According to Weiner, anger and pity are associated with challenging behaviors, whereas pity is associated with uncontrollable causes such as biological factors. Conversely, anger is associated with controllable circumstances.

Zijilmans, Embregts, Bosman, and Willems (2012) support Weiner's (1985) finding that behaviors aimed at the environment and at the staff are associated with negative emotions. Dagnan and Cairnis (2005) presented two findings related to Weiner's and suggested that there is a correlation between the attributions of controllability and the judgment of responsibility for both the development and resolution of challenging

behavior. Significant correlations were observed between attributions and emotions; internality correlates positively with anger and negatively with sympathy; stability correlates positively with sympathy. Responsibility for change and sympathy both correlate positively with intention to offer help.

There is a positive correlation between willingness to help and uncontrollability. Mackinlay and Langdon (2009) suggested a positive correlation between willingness to help and uncontrollability, regarding sexually inappropriate behavior amongst adult men with ID. The results indicated that staff attributed sexual offending behaviors as more stable and less controllable by people with ID. With this considered, staff may be sensitive to the underlying causes of challenging behaviors displayed by people with ID (Noone et al., 2006). Jacobs, Woolfson, and Hunter (2015) noted careers of children with ID do not solely interpret the child's problematic behavior through the intellectual disabilities, but incorporate the environment, causes, and attributions that are not related to the ID, which may result in effective caregiving.

Conversely, researchers on staff responses to challenging behavior suggested that negative emotions are associated with the quality of care that individuals with ID receive. Rose, Home, Rose, and Hastings (2004) found that challenging behaviors elicit negative and emotional reactions in caregivers. This supports findings in an earlier study conducted by Carr, Taylor, and Robinson (1991). Carr et al. found that individuals who displayed behaviors that were described as attention seeking were subject to receiving more physical contact and increased intervention by direct support staff. As the attribution theory suggests, staff assign anger to those behaviors that are viewed as

controllable thereby presenting possible reasons for increased physical contact where attention-seeking behaviors were of concern. Challenging behaviors, in turn, influence the way staff members behave to the extent that it reduces adverse experiences in the short term but ensures the long-term survival of challenging. Adverse experiences in the short term ensure the long-term survival of challenging behaviors (Hastings & Remington, 1994).

The staff's personalization of individual behavior may influence how they respond. Rose and Cleary (2007) cited fear as an emotion that may impact the staff's response to challenging behavior. Staff members, based on their perceptions of fear, make choices about where to work and to what degree to engage with clients exhibiting challenging behavior. Similarly, perceived management difficulties with client behavior are associated with anxiety and lower levels of confidence in the staff's ability to implement management advice when working with challenging behavior (Cook, Woods, & Gardiner, 1999). If staff members maintain a positive attitude toward clients and feel supported by their organization, the attributions of control over challenging behavior are lower (Dillworth, Phillips, & Rose, 2011).

Other researchers supported the theory that staff reactions to challenging behavior are related to interpersonal perceptions. Lambrechts and Maes (2009) cited internal attribution as a factor affecting the frequency with which staff report challenging behavior. Bailey, Hare, Haton, and Limb (2006) reported similar results for both self-injurious behaviors and other forms of challenging behavior; associations were also found between the care staff's internal, stable, and uncontrollable attributions of

behavior. Jahoda and Wanless (2005) found that the majority of staff perceived challenging behavior as negative in the moment. Jahoda and Wanless concluded that more than a third of the participants wanted to react to challenging behavior with verbal and or physical aggression. Participants cited their role as caregivers as the primary reason for not responding to challenging behavior with aggression.

In addition to the role of a primary caregiver, staff members may often assume multiple roles, including friend, companion, and teacher, and have varying perceptions of client behavior based on these roles. The staff may respond to challenging behavior based on their professional role or from their own personal perspective (Jahoda & Wanless, 2005). When the staff views challenging behaviors from their personal perspectives, it may suggest a disconnection from their professional roles. Negative reactions to challenging behaviors may occur when one is disconnected from their professional role.

Staff Burnout

When the staff disconnect from their professional roles, it may be attributed to staff burnout. Staff burnout may lead to poor client care as the staff becomes further disconnected from their professional roles. There is a correlation between the existence of a relationship between the staff's perception of challenging behaviors, burnout, and attrition. Burnout is defined as a psychological syndrome in response to chronic, interpersonal stressors on the job and is characterized by overwhelming exhaustion, detachment from the job, and a sense of ineffectiveness (Maslach, Schaufeli, & Leither, 2001). Chung and Harding (2009) supplied a similar definition, describing burnout as feelings of emotional exhaustion; the depersonalization of others, where staff distance

themselves both cognitively and emotionally from the individual; and diminished feelings of personal accomplishment.

Chung and Harding (2009) suggested that the staff who present personality factors high in neuroticism are prone to depersonalization and burnout. Whereas openness, agreeableness, and conscientiousness were associated with problem-solving coping strategies (Burgess, Irvine, & Wallymahemed, 2010). Deary et al. (1996), Delongis and Holtzman (2005), and Burgess et al. (2010) concluded that the participants that had a tendency to use emotion-oriented coping strategies and negative appraisals of organizational changes, mediating the effect of the personality dimension of neuroticism, reported job stress.

Burnout also increases the occurrence of staff mistakes that adversely affect client outcomes. Halbesleben, Wakefield, Wakefield, and Cooper (2008) concluded that burnout was associated with the reporting of mistakes by nursing staff. Laschinger and Leitcher (2006); Halbesleben and Rathert (2008); and Nahrgang, Morgeson, and Hofmann (2010) noted a correlation between staff burnout and patient safety outcomes. Other researchers have linked training to increased motivation amongst staff and positive outcomes. Chung, Corbett, and Cumella (1996) noted that although direct support staff reported significant levels of stress, they were motivated to receive training. Staff training was also shown to increase positive attitudes toward clients with fewer negative effects of stress resulting from their caretaking role (Ewers, Bradshaw, McGovern, & Ewers, 2002).

Systemic Responses to Challenging Behavior and Staff Perception

Systemic factors may have an impact on how the staff responds to challenging behaviors to include individual experiences and management strategies. Staff training is essential to promoting quality and safe practice (Rovoux et al. 2011, as cited in Baker & Allen 2001; Sanders 2009; Sequeira & Halstead 2001; van Oorssouw et al. 2010). Consistency in carrying out behavioral interventions may rest on the ability of an organization to create effective staff training programs (van Loon, Bonham, & Peterson, 2012).

Gaps exist in the way organizations effectively communicate procedures for addressing challenging behavior. Historically, organizations have responded to challenging behavior by creating policies and procedures for responding to challenging behavior rather than communicating and training staff on how to prevent challenging behavior (Farrell, Shafiei, & Salmon,2010). Handbooks such as WorkSafe Victoria (2008) only provide healthcare management staff with a framework to address aggression. Policies are then expected to be communicated to staff. Moreover, staff response to challenging behaviors may suggest that they are ill-equipped with the tools to address a given situation (Beasly, 2013).

Training programs may increase staff confidence when working with individuals who present with challenging behavior. McDonnell et al. (2008) found that staff training resulted in increased career confidence and a reduction in reports of challenging, service-user behavior and management difficulties. Embregts (2002) found that training direct-

care staff with video and graphic feedback led to an increase in appropriate staff responses to residents' behavior. Training staff in the targeted outcomes (challenging behavior topographies) using performance- and competency-based training and providing on-the-job, supportive and corrective feedback activities increased client participation and improved outcome management (Marsh et al., 2004).

Despite research to the contrary, few training requirements exist for home health care and community-based service workers, which includes direct support staff (The Lewin Group, 2008, as cited by Sedleszky, 2010). This lack of consistency in training measures and programs may suggest that staff misunderstanding of the rationale for the use of reactive interventions is due to a lack of communication between direct support staff and management (Ravoux et al., 2011) Even when organizations instruct their staff on how to address challenging behaviors, these interventions may not be consistent. Train-the-trainer programs can reinforce the effects of training; however, other methodologies may be required to ensure that training has a strong impact on service delivery (Reid et al., 2000). Macurick, O'Kane, Malanga, and Reid (2008) noted that the long-term success of staff training is tied to how well information is received and how deeply staff resonate with the modality of training.

Without additional changes in the workplace, including clear incentives for staff to work with clients in a specified manner, training has little impact on staff performance in service settings (Ager & May, 2001). Even when organizations support staff training, most direct support workers are not rewarded with incentives (Hoge, McFaul, Calcote, & Tallman, 2008). The need to motivate staff and create programmatic buy-in is echoed by

McDonald and McDonald (1991) who suggested that increasing wages for those who work directly with challenging behaviors may reduce attrition rates. Arrey and Copeland (2015) supported the work of McDonald and McDonald stating that worker participants listed lack of good wages and benefits and lack of a career trajectory as barriers to staff and client success and autonomy. Wages are also linked negatively to the willingness to supply direct care (Carmichael, Charles, & Hume, 2010). In conjunction with better wages, providing career ladders and lattices based on evidence-based training competencies may increase staff motivation and reduce attrition rates (Sedlezky, 2015). Reducing attrition and maintaining staff motivation cultivates an organizational culture of staff expertise, which may have a positive impact on the quality of life for service users.

Aversive and Nonaversive Techniques as Responses to Challenging Behavior

Both aversive and nonaversive means have been used to control challenging behaviors; they include psychopharmacological interventions, physical restraint, seclusion, mechanical restraint, and written behavior intervention programs (Brosnan &Healy, 2010; Chowdhury &Benson, 2011; Tsiouris, Kim, & Brown, 2012). According to Tsiouris et al. (2013), 58% of individuals with ID are prescribed psychotropic medications and 13% are prescribed medication for control of challenging behavior; 38% are prescribed both. Even though medication can improve care for some individuals, they are not without risk and do not selectively target problematic behaviors (Pyles, Muniz, Cade, & Silva, 1997). This may be related to the idea that some psychiatric symptoms exist concurrently with challenging behaviors. Holden and Gitlesen (2008) reported considerable overlap between psychiatric symptoms, as rated by caregivers, and

challenging behaviors.

Aside from psychopharmacological intervention, seclusion and restraint are the interventions most used in the treatment and management of disruptive and violent behaviors (Salis & Fenton, 2012). These interventions have no therapeutic value, add to human suffering, and have frequently resulted in severe emotional and physical harm or even death (Position Statement 24, 2015). Nevertheless, seclusion and restraint are commonly used practices, and according to one study, 44.4% of individuals with ID are secluded; 42.0% are physically restrained, and 27.2% are mechanically restrained (Cote & Morin, 2013).

The use of physical restraint has the potential to damage the client-staff relationship by eliciting feelings of dehumanization (for both staff and client) and agitation, and it has the potential to evoke trauma or retraumatize an individual (Partie, 2008). Approximately 80% of the cases where client abuse was cited were related to a staff person's attempt to control a behavior (Partie, 2008). Jones and Kroses (2006) interviewed 10 individuals with intellectual disabilities who were restrained frequently to understand their views of physical restraint procedures. Individuals who participated in this study noted adverse and inconsistent restraint procedures as well as feelings of isolation and dehumanization after the restraint. Staff training in communication and consistency of restraint procedures was identified as a potential solution to preventing injuries and de-escalating situations involving challenging behaviors.

Conversely, nonaversive behavior management is an approach to supporting people with undesirable behaviors that integrates technology and values (Horner et

al., 1990). One such nonaversive technique is the behavior-intervention plan. A behavioral-intervention plan can be thought of as a plan to support an individual in order to help him or her change problematic behavior (Behavior intervention plan, 2015). Interventions are specific procedures for redesigning the environment and should be selected based on functional assessment information about (a) the antecedent events that occasion the problem behavior, (b) operational descriptions of the problem behavior(s), and (c) the specific consequences that maintain the problem behavior or behaviors (O'Neil et al., 1997). For a behavior plan to work, it must be adequately and consistently implemented, which requires the support team to have: (a) knowledge about the individual and his or her behavior, (b) knowledge of the context in which support will be provided, and (c) knowledge of behavioral theory (Benazzi, Horner, & Good, 2006). This will require staff training and the understanding that no one person on the support team has all the answers (Benazzi et al., 2006).

In addition to behavior support plans to reduce challenging behaviors, researchers also support the use of applied behavioral analysis with which lower rates and elimination of challenging behaviors have been noted (Borrero & Voller, 2006; Foxx & Mendl, 2007; Ringdahl, Christensen, & Boelter, 2009). Applied behavioral analysis was also shown to increase staff understanding of challenging behavior (Brosnan & Healy, 2011; Dowey et al., 2007).

Positive Behavior Support

According to Carr et al. (2002), Positive Behavior Support (PBS) is an applied science that uses educational methods to expand an individual's behavior repertoire. In

the 1980s, PBS gained momentum as a nonaversive approach, primarily due to the deinstitutionalization and community integration movements. Community support organizations needed effective ways to provide equal opportunity for all citizens regardless of any disability and eliminate the use of aversive techniques (Johnson, Foxx, Jacobson, Green, & Mulick, 2006). By the late 1980s, PBS was found to promote (a) community and educational inclusion for people with disabilities, and (b) functional, nonaversive interventions for behavior problems. This led to significant advocacy and policy initiatives on the part of some national organizations as well as various state and federal agencies (Sailer, Dunkap, Sugai, & Horner, 2009). One of the most prolific policy changes was the Individuals with Disabilities with Education Act (IDEA).

IDEA was amended in 1997 to include PBS. Support for PBS grew out of a need to address challenging behaviors without denying access to the curriculum (PBIS and the Law, 2015). At the time that IDEA was amended in 1997 to include PBS, there was overwhelming research to support its use as an evidence-based practice (Fair and Effective Discipline for All Students, 2015). The excitement about PBS lies in the promise it holds for addressing the real and difficult challenges posed by problem behaviors (Horner, 2000). In the early part of the decade, PBS became an evidence-based practice and emphasized a process of intervention that is accepted as an empirically effective way to support individuals who exhibit disruptive and dangerous behavior (Dunlap et al., 2000). Positive behavior supports, as reported in 1999, was effective in one-half to two-thirds of cases where the primary concentration is challenging behavior (Carr et al. 1999).

Effective environments make problem behaviors irrelevant, inefficient, and ineffective (Horner, 2000). Meaningful change is possible only if systems are restructured in a manner that enables change to occur and be sustained (Carr et al., 2002). Creating an environment that supports sensitivity and understanding toward individuals with challenging behavior is paramount in eliminating abuse, neglect, and staff burn-out. Training staff to understand challenging behavior can achieve this.

Training and Support

Staff perceptions of challenging behavior are loosely based on service outcomes for individuals with intellectual disabilities. Training staff in areas such as communication, conceptualization, and functional analysis of behavior may be effective in increasing staff's understanding of behavior and may elicit responses that are more likely to produce positive service outcomes. Zijilmans et al. (2011) suggested that a combination of in-service training and coaching on the job appears to be the most effective strategy. Alternatively, infrequent training regarding challenging behaviors results in poor service outcomes for the client, including injury. According to The Arc (2015) and the U.S. Department of Education, Office of Civil Rights, from 2011-2012, over 110,000 students were subjected to these unsafe intervention techniques.

Staff members play an important role in the lives of residents and contribute to the natural contingencies that improve and maintain appropriate and inappropriate behaviors of individuals with intellectual disabilities (Embregts, 2002). Staff feedback is critical for bringing awareness to behaviors that are counterproductive and reinforce challenging behaviors. Embregts (2002) noted that video feedback in tandem with training increased

appropriate staff responses from 16.96% to 39.08%.

Staff training has a positive effect on reducing systemic issues, including absenteeism and staff burnout; on their own, absenteeism and staff burnout have a negative impact on the well-being of clients (Zijilmans et al., 2011). Gore and Umizawa (2011) used a systemic model to address gaps in the training of staff and parents to address challenging behavior among children with intellectual disabilities. Gore and Umizawa suggested that positive changes were noted regarding challenging behavior, staff and caretaker attributions, and emotional reactions following training. With systemic training, family caretakers and direct support staff benefited from receiving combined training to support challenging behavior. To date, researchers have failed to address frontline staff, such as transportation drivers, who serve in supportive roles and whose experiences can impact the system of support for individuals with intellectual disabilities.

Summary

In the literature review, I looked at the thematic content of various peer-reviewed articles and research studies. The following themes were included in this literature review. I addressed challenging behavior from a systemic standpoint may increase the quality of life for persons with intellectual disabilities. There is a correlation between challenging behavior and staff response (Cooks, Woods, & Gardiner, 2000; Dillworth, Phillips, & Rose, 2011). Management strategies may have an impact on the efficacy and consistency of staff training (Benazzi et al., 2006; Macurick et al., 2008; Reid et al., 2000; Worksafe, 2008). No current researchers have addressed training transportation drivers who provide support to individuals with intellectual disabilities and/or

challenging behavior, more specifically when their primary job is not direct support.

Chapter 3: Research Method

This chapter provides an explanation of the rationale for the research design. The population is clarified, and the sample and sample procedures are discussed. I describe the data collection procedures and justify both the intervention and instruments used. I also explain the data analysis plan used to answers the research questions. In the chapter, I detail the threats to validity and the ethical procedures, as well as a summary of the chapter.

Research Design and Rationale

Design Rationale

I used a quantitative, quasi-experimental design. Quantitative, quasi-experimental designs have several advantages over other types of research. It is the best research device from the point of view of internal validity: it can provide answers about causal relations that other forms of inquiry do not, and it is important for the development of explanations of complex social behaviors (Silva, 2008). I sought to understand the relationship between perception, a social behavior, and communication training amongst nonemergency transportation drivers. Given the aforementioned advantages, a quasi-experimental design worked best to understand this relationship.

To draw inferences between communication training and transportation driver perception, I followed a pre and postintervention setup. However, I used a controlled convenience sample. A convenience sample is a nonprobability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (“Convenience Sampling,” 2016). Random sampling of transportation drivers

would have been difficult to ascertain. I relied on naturally formed organizations of transportation drivers to collect a convenience sample.

Because the participants of this study were selected by convenience sampling rather than random sampling, it met the definition of a quasi-experiment. Quasi-experiments are used to improve a researcher's ability to identify causal influences compared with a correlation study (Cramer & Howitt, 2004). The independent variables were the experience of drivers (new and veteran). A driver's perception of challenging behavior, as measured by the CHABA, was the dependent variable. To assess whether perception changes as a result of Positive Behavior Support Training, I used a pre/posttest design. As I evaluated changes in perception or attitudes about challenging behavior, and a pretest was needed to determine whether or not attitudes toward challenging behavior have changed after the intervention or if the means of the groups are similar prior to the measurement. The posttest, given immediately after the intervention, helped me to identify any statistically significant means when compared with the pretest means.

Participants attended a 4-hour training using the Positive Behavior Supports Training Curriculum, 2nd edition. This curriculum was selected because it allows support staff to interact with people with ID in service settings that provide the opportunity to be taught principles of Positive Behavior Support Curriculum (Positive Behavior Support Curriculum, 2015). The curriculum emphasizes mastery of each section taught through activities that reach across learning styles such as role play and puzzle searches. The Positive Behavior Supports Curriculum 2nd edition also has a trainee resource guide. This

resource guide summarizes the modules taught in the curriculum and served as way for participants to take notes and refer to materials after the study ended.

I selected this research designed to be in line with previous researchers who examined staff perception and attitudes (Bailey et al., 2006; Cook et al., 2000; Dillworth et al., 2011; Joahoda & Waneless, 2005; Lambrechts & Maes, 2009; Rose & Cleary, 2007). Studies in this area were noted to be quantitative in method and used an experimental design. Moreover, studies in this area also used pre and posttest designs to establish relationships between challenging behavior and perception (Rose & Cleary, 2007; Chung & Harding, 2009; Lunsky, Hastings, Hensel, Arenovich, & Dewal, 2009; Noone et al., 2003).

Methodology

Population. The participant population included nonemergency transportation drivers who transport individuals with ID and challenging behaviors. Participants were recruited from Virginia-based, nonemergency transportation contractors. Owners of the Virginia-based, nonemergency transportation contractors were contacted through a letter requesting approval to conduct the study (see Appendix A). I sought approval to conduct the study from the institutional review board (IRB) at Walden University. In the informed consent, I outlined the identification of the research, sponsoring institution, purpose of study, benefits for participating, identification of the level and type of participant involvement, risk to participant, guarantee of confidentiality to the participant, assurances that the participant can withdraw at any time, and provisions of names of persons to contact if questions arise (Creswell, 2014).

Sampling and sampling procedures. The participants for this study were selected using convenience sampling. I chose a convenience sample because of the relative ease of access to the population, proximity, and potential low cost involved in collecting the sample (Salkind, 2010). Transportation companies who are direct contractors with Logisticare and provide transportation services to individuals with ID were selected. Providers were chosen from a Logisticare provider list using the local zip code. All consented drivers, regardless of age or sex, were included in this study. Drivers must have provided services to individuals with ID. I conducted a power analysis to obtain an adequate sample that allowed me to observe the desired effect.

For a power analysis, Howell (2013) recommended that power be near .80, the use of an alpha of .05, and at least a medium effect size in the calculation of a proper sample size. G*Power 3.1.9 was used to calculate an appropriate sample size using a power of .80, an alpha of .05, a large effect size (d = .80), and a two-tailed test. Based on the above parameters and using an independent samples t test with two groups (new or veteran drivers), a sample of at least 52 participants was needed to ensure empirical validity (Faul, Erdfelder, Buchner, & Lang, 2014). I sought an equal sample of 26 new and 26 veteran drivers to ensure that the power analysis requirements were met.

Procedures for recruitment, participation, and data collection. The participants were selected from local transportation companies that are contracted to provide services to individuals with ID on behalf of Logisticare. Company owners were contacted via phone to explain the purpose of the study, elicit participation, and provide dates for local information sessions. Two local in-person information sessions regarding

the study's purpose were held for interested drivers. Interested drivers chose to attend either date. Drivers received consent forms and a demographic survey. The purpose of the demographic survey was to identify new career and veteran drivers. During the information session, drivers were given the dates for the upcoming communication training.

Drivers were required to attend one 4-hour training session on communication training using the Positive Behavior Support Training Curriculum, 2nd Edition. The CHABA scale was administered on paper prior to the intervention and immediately thereafter.

The following incentives were offered to the organizations and drivers for completing trainings and surveys: Wal-Mart gift cards, Certificate of Attendances, free training, and acknowledgement of participation in this study. Gift cards and certificates were given to participants who attended the training session and completed the pretest and posttest. Participants were advised of the benefits of study during information sessions.

Intervention. The Positive Behavior Support Training Curriculum, 2nd Edition was used. This manual was written by Reid and Parson. The first edition of the manual was introduced in 2004. The Positive Behavior Support Training Curriculum (2004) was validated and implemented on a statewide level by the South Carolina Department of Disabilities and Special Needs and was used to train 1,000 direct support staff and 637 supervisors of direct support staff. The second edition to manual issued in 2007 and was changed to reduce total training time for direct support staff, includes greater selection of

activities to work with people with varying degrees of disability, and simplified trainee activities to make learning easier for staff (Positive Behavior Support Curriculum, 2015). To complete this training as outlined above, an individual with expereince providing direct support services in the ID field is required . I did not conduct the training so that bias was not introduced into the study.

Instrumentation and Operationalization of Constructs

Perceptions of challenging behaviors. Hastings (1997) designed the CHABA scale in 1997 at the University of Southampton, High field, Southampton, England. The CHABA was designed to establish as a method for measuring staff attributions toward individuals with intellectual disabilities that could facilitate research in this area (Hastings, 1997). According to Hastings, the CHABA was created from amending items to a questionnaire used in previous research concerning challenging behavior experience by staff. The original questionnaire contained 25 items in 1995 and was expanded by the addition of seven items in 1997. The 33-items scale contains statements relating to the five causal models: learned behavior (six items, three items for learned positive and learned negative), biomedical (six items), emotional (six items), psychical environment (eight items), and stimulation (six items). An example item from the CHABA is "They do not like bright lights."

According to Hastings (1997), the five main subscale scores are calculated from ratings of the CHABA items, and each rating is assigned a value of (-2) *very unlikely*, (-1) *unlikely*, (0) *equally likely/unlikely*, (1) *very unlikely*, or (2) *very unlikely*. A total score for each subscale item is derived by summing the ratings on all of the items associated

with the five casual models and dividing this number by the number of items in the subscale (Hastings, 1997). A subscale of 0 suggests that the respondent considers that the particular casual model is unlikely to apply to the rated behavior; whereas, a score above 0 suggests that the particular casual model is viewed as applicable to the rated behavior (Hastings, 1997). For this study, the mean of all 33 items was computed; higher scores indicated a favorable perception of challenging behaviors, while negative scores indicated a less than favorable impression of challenging behavior.

To assess reliability of the CHABA, Hastings (1997) sent questionnaires to managers of all group homes and units for people with IDs in a community service in the south of England. Ninety staff returned questionnaires at a response rate of 60%. Reliability of CHABA was assessed by the internal consistency method using Cronbach's alpha coefficient for each of the subscales, which show a moderate to good level of reliability for all of the CHABA subscales. Cronbach's alpha was noted to be between α=0.65 and α=0.87 in Hasting's article.

The CHABA has good reliability. George and Mallery (2010) suggested that the acceptable Cronbach's alpha is at .70. Hastings and Brown (2002) reported Cronbach's alpha at a more than acceptable level (α = .86). McGill, Bradshaw, and Hughes (2006) reported all acceptable alphas on the CHABA (0.70). Davies, Griffifth, Liddiard, Lowe, and Stead (2015) also reported Cronbach's alpha's on the CHABA between α=0.65 and α=0.87. Even though some scholars have reported alpha reliability levels that are a little less than acceptable (Tynan & Allen, 2002), the CHABA has still been shown to be a reliable measure.

Validity is used to determine if a test is measuring what it is intended to measure (Creswell, 2012). Hastings (1997) stated that validity for the CHABA was difficult to establish because it had not been tested and applied by other researchers. Other researchers have noted the difficulty of establishing external validity for the CHABA and have noted that further testing should be done (McGill et al., 2006; Tynan & Allen, 2002). However, this measure has been used in research (Lowe et al., 2007; Tierney, Quinlan, & Hastings, 2007). Davies et al. (2015) tested the construct validity of the CHABA by using confirmatory factor analysis (CFA) and found that it supported the overall validity of the measure.

Veteran or new drivers. The experience of drivers was measured by the demographic questions that ask how long they have been in the position. Answers were continuous and measured as years and months. The participants were grouped based on their experience level with new drivers having less than 2 years of experience and veteran drivers having 2 or more years of experience.

Data Analysis Plan

All measurable data collected were entered into SPSS 22.0. The dataset was screened for missing data, accuracy, and any possible outliers. Accuracy of the data refers to the removal of any errors in the data due to entry or the calculation of variables (Cohen, Cohen, West, & Aiken, 2003). Descriptive statistics were conducted to describe the sample through the participants' demographics and the variables of the study. Standardized values were computed to assess if the participants' responses were considered outliers. Tabachnick and Fidell (2012) described outliers as values that fall

above 3.29 and below -3.29 from the standardized values. In cases with missing data, examination for nonrandom patterns was evaluated. Participants who did not complete major sections of the questionnaire were excluded. I decided to exclude participants from the final sample if the missing data are large in quantity. I examined the following research questions and hypotheses.

1. Does communication training promote positive perceptions of challenging behavior amongst nonemergency transportation drivers based on the composite CHABA scores?

$H_1$0: There is no significant difference in perceptions amongst nonemergency transportation drivers, based on the composite CHABA scores, before and after completing communication training.

H_1a: There is a significant positive difference in perceptions amongst nonemergency transportation drivers, based on the composite CHABA scores, before and after completing communication training.

2. Based on the CHABA rating scales, are there significant differences in perception between new and veteran drivers before training?

$H_2$0: There is no significant difference in perceptions, using the composite CHABA scores, between new and veteran drivers before training.

H_2a: There is a significant difference in perceptions, using the composite CHABA scores, between new and veteran drivers before training.

3. Are there significant differences in perception of challenging behavior between new and veteran drivers after training, based on the CHABA rating scale?

$H_3$0: There is no significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores.

H_3a: There is a significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores.

This study required a between means comparison whereas new and veteran drivers and change in perception prior to and after training. To answer the research question posed in this study, a two-way ANOVA with repeated measure design was used and deemed the most appropriate measure to extract data. Two-way analysis of variance (two-way ANOVA) is the test used to analyze the data from a study in which the investigator wishes to examine both the separate and the combined effects of two variables on some measure of behavior (Levin, 2004).

A two-way ANOVA repeated designs measure was used as this study due to the pre and posttest design. It is appropriate when the when the two scores are repeated measures, such as in situations when the assessment is used as a pretest before an intervention and as a posttest after the intervention (Morgan, Leech, Gloekner, & Barrett, 2007).

This was a repeated-measure analysis in which the same participants' scores on a single dependent variable were compared by time (i.e., pretest vs. posttest). Specifically for this study, the perceptions of nonemergency transportation drivers were compared

before and after communication training occurred. The assumption of normality was examined with a one sample Kolmogorov Smirnov (KS) test (Howell, 2010). This test compares the distribution of a variable to a hypothetically perfect normal curve, and it indicates the significance in the difference between the two distributions. Howell (2010) recommended this test for assessment of univariate normality because it provides a statistical anchor to state whether a variable follows a normal distribution, and it does not rely on the researcher's own interpretation of a variable's spread.

The assumptions of normality and homogeneity of variance were assessed. Normality was assessed with a one sample Kolmogorov-Smirnov test. However, the ANOVA is quite robust against violations of normality, particularly in sample sizes grater than 30 (Morgan et al., 2007). Homogeneity of variance assumes that both groups have equal error variances and was assessed using Levene's test. If the Levene's test is significant, the assumption is violated and to adjust for this violation, the degrees of freedom unequal error variances were used. The Levene's test, with alpha levels, or the probability of rejecting the null hypothesis when it is true, set at $p < 0.05$ and ensured a 95% confidence that differences did not occur by lone chance. Given an alpha set at 0.05, significant finding were rendered when a calculated *t*-value is larger than the critical *t*-value after considering degrees of freedom (*df*) for independent samples (*N*- 2).

Threats to Validity

External Validity

External validity corresponds to the ability of generalizing the research results to the overall population (Gliner, Morgan, & Leech, 2010). To address the risk to external

validity, I conducted random population sampling. Another way to protect external validity is through research replication (Johnson & Christensen, 2012). Multiple-treatment interference corresponds to the effect that more than one intervention would have on the overall effect, which limits the generalizability of the study (Johnson & Christensen, 2012). However, the participants in the current study only received one treatment, so this type of threat to external validity was minimized. Dubious specificity of variables is another threat to external validity, since poorly specified variables affect the actual effect the construct would have on the general population (Johnson & Christensen, 2012). I minimized this threat by using an instrument that has shown good reliability and validity to specifically measure the variable of interest.

Internal Validity

Internal validity is needed in a study to ensure that any relationship between variables of interest is causal and not due to chance (Johnson & Christensen, 2012). Threats to internal validity affect the relationship between variables of interest due to confounding effects or variables. These threats include history, maturation, testing, statistical regression and mortality/attrition (Johnson & Christensen, 2012).

History refers to any event, other than the intervention, that might influence the dependent variable and which occurs between the pretest and posttest examination (Johnson & Christensen, 2012). If these history events should occur in the time between the collection of the pretest and posttest scores, then the differences observed might be confounded. For this study, I controlled history by ensuring that both the pretest and posttest data were collected immediately in order to minimize the time lapse.

Maturation threat is present when biological and psychological changes occur through a time lapse and which affect the internal conditions of the participants (Johnson & Christensen, 2012). These changes might include age, ability, mobility, and the like. The data collection for the CHABA scores in the study were completed immediately following the intervention, thereby minimizing the potential maturation.

Threat from testing refers to changes in the posttest scores that result from having taken the questionnaire previously (Johnson & Christensen, 2012). For this study, participants took the retake CHABA immediately after completing the communication training. This was enough time for the questionnaire to be forgotten and for testing effects to be minimized as the participants are learning new strategies.

Statistical regression threats occur when participants have extremely high or low scores on the measure of interest (Johnson & Christensen, 2012). These scores tend to move toward the mean when participants are asked to take the same test for a second time. The threat of statistical regression was minimized by collecting participants who are representative of the population and by examination of data collected to remove these extreme cases.

Mortality/Attrition threats occur when participants drop out of the research study and increase the risk to internal validity due to the missing data (Johnson & Christensen, 2012). For this study, data collection occurred after the intervention concluded, which eliminated the risk of participant's attrition. Compensation was provided to participants who fully completed the study, thereby minimizing mortality.

Ethical Procedures

All potential participants consented to the research prior to the administration of the CHABA questionnaire or the treatment. The consent form also included a description of the study's purpose, risk and benefits of participation, and the researcher's contact information. Participants were assured that any participation in the study was voluntary and that exclusion from the study was available at any point or time.

I ensured the anonymity of the participants. Any identifiable information was removed from the data gathered from the study; data are stored electronically on a PC. I am the sole person able to access the information. The data will be kept for a period of 5 years, at which point it will be deleted permanently.

Summary

Chapter 3 included a description of the research design and methods employed in this study. A quantitative quasi-experimental design allowed me to quantify the effect of the treatment and test the hypothesis of the research questions. The participants in this study were new and veteran nonemergency transportation drivers. Participants received training based on the Positive Behavior Support Training Curriculum and the CHABA administered as pretest and posttest to measure the level of perception regarding challenging behaviors.

To answer the research questions, a two –way ANOVA was conducted. These statistical methods allowed me to test whether a significant difference was observed in CHABA scores between preintervention and postintervention, as well as for significant differences in CHABA scores between new and veteran drivers. The results of the

analyses provided evidence about whether positive behavior training can increase positive perceptions of challenging behavior toward individuals with ID among nonemergency transportation drivers. The findings also allowed me to determine whether variations in tenure result in different perceptions of challenging behaviors among nonemergency transportation drivers.

Chapter 4 presents the findings of the study. I followed the methods explained in this chapter and analyzed the data gathered. Descriptive statistics of the sample are explained and statistical analyses were conducted to assess the research questions.

Chapter 4: Results

The purpose of this study was to see if Positive Behavior Support Training has an impact on the perceptions of transportation drivers as they apply to challenging behavior exhibited by individuals with IDs. This chapter begins with an explanation of the preanalysis data cleaning and a description of the sample characteristics. This is followed by a brief overview of the results. A more detailed analysis of the results is then given, with a summary of the chapter given at the end.

Preanalysis Data Cleaning

One case was removed for missing data. The remaining data were assessed for outliers; zero cases contained outliers. In order to conduct the following analyses, composite scores needed to be created. The composite scores were created based on the recommendations of the CHABA instrument author (Hastings, 1997), who suggested summing the ratings on all of the items associated with each measure and dividing this number by the number of items in the measure. Driver's Perceptions pre-training was created by summing all pretest questions (q1-q33) and dividing by 33. Driver's Perceptions post-training was created by summing all posttest questions (q1-q33) and dividing by 33. The reliability of these composite scores was assessed through Cronbach's alpha. Cronbach's alpha coefficients were interpreted using George and Mallery's (2016) guidelines, where > .9 Excellent, > .8 Good, > .7 Acceptable, > .6 Questionable, > .5 Poor, < .5 Unacceptable. The reliability for each composite score was excellent (see Table 1).

Table 1

Cronbach's Alpha Coefficients

Composite Score	α	No. of Items
Driver's Perceptions Pre-Test	.93	33
Driver's Perceptions Post-Test	.96	33

Descriptive Statistics

The final sample of 52 participants was approximately evenly split between men (*n* = 27, 51.9%) and women (*n* = 25, 48.1%). Participants were mostly African Americans (*n* = 30, 57.7%), single (*n* = 26, 50.0%), and made $15,000-$25,000 (*n* = 18, 34.6%). The mean age of the participants was *M* = 43.98 (*SD* = 11.63). Participants were almost evenly split between new (*n* = 25, 48.1%) and veteran (*n* = 27, 51.9%) drivers. Most had not received prior Positive Behavior Support training (*n* = 28, 53.8%). Of those who did receive prior training, the majority of participants received training over 1 year ago (*n* = 20, 38.5%). Most participants had not had any participation in treatment teams (*n* = 29, 55.8%). Frequencies and percentages of the categorical demographic variables are presented in Table 2. Means and standard deviations of continuous demographic variables are presented in Table 3.

Table 2
Frequencies and Percentages of Variables of Interest

Variable	*n*	%
Gender		
Female	25	48.1
Male	27	51.9
Ethnicity		
African American	30	57.7
Caucasian	7	13.5
Other	15	28.8
Marital Status		
Single	26	50.0
Married	21	40.4
Divorced	5	9.6
Income		
$0-15k	6	11.5
$15-25k	18	34.6
$25-35k	14	26.9
$35-45k	13	25.0
>$45k	1	1.9
Driver Experience		
New	25	48.1
Veteran	27	51.9
Prior Training		
No	28	53.8
Yes	24	46.2
Time Since Last Training		
Has never received training	28	53.8
Less than 1 year ago	4	7.7
Over 1 year ago	20	38.5
Participation in Treatment Teams		
No	29	55.8
Yes	23	44.2

Table 3

Means and Standard Deviations for Continuous Variables

Variable	Min	Max	*M*	*SD*
Age	21.00	65.00	43.98	11.63

Post-Hoc Power Analysis

A posthoc power analysis was performed using G*Power 3.1.9.2. Given a medium effect size of .25, a significance level of .05, and a total sample size of 52, the power achieved for the two-way ANOVA with repeated measures was .94 or 94%. This means that the power for the two-way ANOVA with repeated measures was sufficient.

Results

Analyses in this study were conducted in response to three research questions:

Research Question 1. Does communication training promote positive perceptions of challenging behavior amongst non-emergency transportation drivers based on the composite CHABA scores?

H_0. There is no significant difference in perceptions amongst non-emergency transportation drivers, based on the composite CHABA scores, before and after completing communication training.

Research Question 2. Based on the CHABA rating scales, are there significant differences in perception between new and veteran drivers before training?

H_0. There is no significant difference in perceptions, using the composite CHABA scores, between new and veteran drivers before training.

Research Question 3**.** Are there significant differences in perception of challenging behavior between new and veteran drivers after training, based on the CHABA rating scale?

H_0. There is no significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores.

Analysis of the three research questions was conducted through a two-way ANOVA with repeated measures. The following details include the full statistical outcomes of this analysis and the resulting determination of whether to accept or reject the null hypotheses.

Detailed Analysis

In order to examine the research questions, a two-way ANOVA with repeated measures was conducted. In this analysis, the between-subjects effect was driver experience (i.e., new vs. veteran drivers). According to Pagano (2009), a two-way ANOVA with repeated measures is the correct analysis to perform when the research aim is to determine if changes over time (the within-subjects effect) depend on group membership (the between-subjects effect). The within-subjects effect was time (i.e., pretraining vs. posttraining). The dependent variable was driver perceptions of challenging behavior (CHABA score). Main effects were tested to determine if driver perceptions differed between new and veteran drivers and if driver perceptions differed from pretraining to posttraining. Additionally, the interaction between driver experience and pre vs. posttraining was tested to determine if differences in driver perceptions from pretraining to posttraining depended on driver experience.

Prior to the analysis, the assumption of normality was examined using a Kolmogorov-Smirnov (KS) test. This test was selected over possible alternatives, such as examination of a histogram, because it provides a statistical anchor to state whether a variable follows a normal distribution and does not rely on the researcher's own interpretation of a variable's spread (Howell, 2010). The KS test indicated that the assumption of normality was violated ($p = .017$). Several data transformations were applied in an effort to meet the normality assumption. These transformations included natural log, square root, and cube root transformations. However, the assumption was still violated after transforming the data (all KS test p-values < .05). The analysis was continued using untransformed data, as ANOVA is generally considered robust against violations of normality, especially when sample sizes are greater than 30 (Pallant, 2013). Levene's test indicated that the assumption of homogeneity of variances was not violated (pretraining $p = .995$; posttraining $p = .922$) and that variances between the two groups were sufficiently equal.

The means and standard deviations for driver perceptions pre and posttraining between veteran and new drivers are presented in Table 4. The results for the between-subjects main effect are presented in Table 5, and the results for the within-subjects main effect and the interaction are presented in Table 6. The within-subjects main effect was not significant ($F(1, 50) = 1.90$, $p = .174$), indicating that driver perceptions did not differ from pretraining to posttraining. Thus, the null hypothesis for Research Question 1 cannot be rejected. The between-subjects main effect also was not significant ($F(1, 50) = 0.32$, $p = .576$), indicating that driver perceptions did not differ between new and veteran

drivers. Finally, the interaction was not significant ($F(1, 50) = 1.71$, $p = .197$), indicating that differences in driver perceptions from pretraining to posttraining did not depend on driver experience. Thus, the null hypotheses for Research Questions 2 and 3 cannot be rejected.

Table 4

Descriptive Statistics for Driver Perceptions Pre- and Post-Training between Veteran and New Drivers

Variable	New		Veteran	
	M	*SD*	*M*	*SD*
Driver Perception Pre-Training	0.48	0.59	0.66	0.56
Driver Perception Post-Training	0.47	0.74	0.48	0.74

Table 5

Between-Subjects Main Effect for Mixed ANOVA

Source	Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Driver Experience	0.24	1	0.24	0.32	.576	.01
Error	37.39	50	0.75			

Table 6

Within-Subjects Main Effect and Interaction for Mixed ANOVA

Source	Sum of Squares	*df*	Mean Square	*F*	Sig.	Partial Eta Squared
Pre vs. Post-Training	0.24	1	0.24	1.90	.174	.04
Driver Experience x Pre vs. Post-Training	0.21	1	0.21	1.71	.197	.03
Error	6.18	50	0.12			

Summary

This chapter began with a reiteration of the research purpose and a description of the preanalysis data cleaning procedures. A description of the sample characteristic followed. A brief overview and a detailed analysis of the results was given as well. I found that there was no significant difference in perceptions amongst nonemergency transportation drivers, based on the composite CHABA scores, before and after completing communication training. I also found that there was no significant difference in perceptions, regardless of before or after training and using the composite CHABA scores, between new and veteran drivers. Finally, I found that there was no significant difference in perceptions of challenging behavior between new and veteran drivers after training, on composite CHABA scores. In the next chapter, I present the results in terms of the extant literature, as well as a discussion on the strengths and limitations of the study. I also provide future directions for research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine whether positive behavior support training had an impact on the perceptions of nonemergency transportation drivers related to challenging behavior exhibited by individuals with ID. Nonemergency drivers are an important part of the support network for individuals with ID because drivers transport individuals with IDs to work, to doctor's appointments, to visit family members, and to other social activities and events that can enrich the lives of individuals with ID. Systems theory (von Bertalanffy, 1968) served as the theoretical foundation for the study and holds that the parts of a system are interrelated and the complementarity of system components are important to the overall functioning of the system and system outcomes. The study was necessary because insights into the perceptions of transportation drivers may help nonemergency transportation companies recognize the need for positive behavior support training to support staff in addressing challenging behaviors. The study was needed also to provide information on the need for transportation drivers to be considered as an integral part of the direct care of individuals with ID. In this chapter, I summarize the study findings, interpret findings in relation to previous literature, discuss the limitations of the study, discuss implications for social change, and make recommendations for further research.

Three research questions guided this study. Research Question 1 was aimed at discovering if training in general prompted positive perceptions amongst participants. Questions 2 and 3 were asked to determine if there were differences in perception

between new and veteran drivers, whether positive or negative. I found that there were not significant differences in pre and posttested perceptions, nor were there any significant difference in perceptions amongst veteran and new drivers. Although there were no significant relationships reported, the present study provides information for the need to adapt training programs for the needs of nonemergency transportation drivers who support individuals with ID and challenging behaviors.

Interpretation of the Findings

There were no significant differences between new and veteran drivers regarding perception of behaviors before training, or between new and veteran drivers regarding perception of behaviors after training. Based on previous research, direct care staff can experience job-related stress and burnout over time (Ewers et al., 2002). Given this, it was hypothesized that new drivers would hold positive perceptions of challenging behaviors and veteran drivers would hold negative perceptions of challenging behavior. However, the finding of the present study did not support the findings of Ewers et al. (2002) and may indicate that new and veteran drivers experience stress less frequently than their direct support counterparts.

One reason for this may be related to the nature of the job. Nonemergency transportation drivers are often given varied routes each day, resulting in different passengers. Therefore, the drivers are not constantly exposed to challenging behaviors. Possibly, the constant change in passengers creates a sort of stability wherein drivers' perceptions were unchanged regardless of time on the spent on the job. Shahriani, Shamali, and Yazdannik (2014) found that rotating shifts among nursing staff helped to

reduce job burnout, whereas high levels of burnout were reported among nurses with fixed shifts because these nurses were routinely exposed to the same working conditions and patient care demands.

I also sought to determine if there was a positive or negative correlation between job tenure and perception of challenging behavior. Rose et al. (2004) found that challenging behaviors elicited negative responses in caregivers, and Noone et al. (2006) found that staff were more likely to view a behavior as challenging when that behavior was directed toward the environment, including support staff. However, Rose et al. and Noone et al. did not focus on perceptions of behaviors as they related to time on the job (e.g., veteran versus new support staff). The mean score in the present study for new drivers' perceptions pretraining was neutral (.48), indicating that new drivers did not hold either negative or positive perceptions of challenging behaviors. Additionally, new drivers' perceptions posttraining was neutral (.47), indicating that training was not significantly related to changes in new drivers' perceptions. Possibly, drivers accurately perceived the demands of the work prior to accepting the assignment and did not come to the job with negative perceptions.

The mean score in the present study for veteran drivers' perceptions pretraining (.66) was slightly higher than that for new drivers, yet essentially still neutral, indicating a slight trend toward positive perceptions in veteran drivers before training. Veteran drivers' perceptions posttraining was also neutral (.48), suggesting, as with new drivers, that because their perceptions were not negative, there was no reason for a change in perceptions. The finding of nonsignificance in the differences of perceptions amongst

veteran and new drivers suggests that perceptions of drivers do not change over time or after training because both new and veteran drivers do not hold negative perceptions of challenging behaviors.

Additionally, researchers have not examined the relationship between positive behavior support training and the impact this training has on the perceptions of nonemergency transportation drivers. Although the findings of the present study are novel in relation to the perceptions held by drivers prior to and after support training, behavior support training has been shown to improve the perceptions of support staff in other areas. For example, in their study of forensic nurses, Ewers et al. (2002) found that staff training increased positive attitudes toward clients, with fewer negative effects of stress from their caretaking role. McDonnell et al. (2008) found that direct care staff training resulted in increased career confidence and a reduction in reports of challenging behavior and management difficulties. In addition, Embregts (2002) found that training direct care staff with video feedback led to an increase in appropriate staff responses to residents' challenging behavior. I found that drivers have different roles than other support staff members with different perceptions of challenging behaviors.

The finding of nonsignificance between new and veteran drivers regarding perception of behaviors before and after training in the present study does not align with the findings of previous studies in other areas. The findings of the present study could suggest shortcomings in the content of the Positive Behavior Support Training Curriculum. It also may be that the training program does not address the needs of nonemergency transportation drivers, necessitating modification of the training program

for drivers. Job selection and rotation of driver routes may also explain the lack of change in perceptions by allowing for a variety of experiences that may not all involve challenging behaviors. Negative perceptions regarding challenging behaviors were not held by drivers to begin with and, as such, no improvements in perceptions were gleaned. More research is needed on support training for nonemergency transportation drivers.

Theoretical Implications

Systems theory (von Bertalanffy, 1968) was used as the theoretical framework to help understand the perceptions of challenging behaviors of new and veteran drivers and of new and veteran drivers before and after behavior support training. According to systems theory, understanding how the parts of a system work individually is crucial to understanding how the parts of the system work as a whole (von Bertalanffy, 1968). Van Loon et al. (2012) argued that providing effective behavioral support may rest on the ability of organizations to create and implement integrated staff training programs. However, over half of the participants of the present study (55.8%) reported not participating in support teams. In addition, 53.8% of study participants reported never receiving prior training, and 38.5% reported that they received training over a year ago, indicating that while some drivers have never received training, some drivers may experience infrequent or inconsistent training, perhaps helping to explain the finding of non-significance between new and veteran drivers' perception of behaviors before and after training.

Nonemergency transportation drivers are often not included in the larger support system (e.g., the coordination of core support teams) for individuals with IDs, which can

lead to limited training opportunities about how to work with individuals with IDs (Bluth, 2000). Limited training opportunities about how to work with individuals with IDs may influence drivers' perceptions of challenging behaviors. If drivers are not part of the system of core staff support, systems theory may not be suitable for explaining the perceptions of challenging behaviors of new and veteran drivers. Ecological theories (Bronfenbrenner, 1995) that allow researchers to understand phenomena in relation to institutional and environmental factors (e.g., drivers never receiving training or receiving infrequent or inconsistent training) might be better suited to understanding drivers' perceptions of challenging behaviors in relation to receiving or not receiving support training.

Limitations of the Study

Like all studies, the present study had limitations, and the results should be interpreted with these limitations in mind. A statistical limitation was that the assumption of normality was not met. However, as noted in the previous chapter, violations of normality are generally not of concern when the sample size is greater than 30. Additionally, drivers were not allowed to discuss their own perceptions of challenging behavior, their personal experiences with support teams, nor their perceptions of the necessity of training. However, researchers using quantitative designs seek statistical certainty rather than to capture the details of individuals' experiences with the phenomenon under investigation. Nonetheless, a mixed-methods design might have helped to collect qualitative information to augment quantitative data.

Another limitation of this study was that the Positive Behavior Support Curriculum (2nd edition) was not designed with nonemergency transportation drivers in mind. Consequently, the training program may have had some bearing on whether the material resonated with participants or addressed the needs and experiences of participants as nonemergency transportation drivers. That the Support Curriculum did not resonate with drivers may be a partial explanation for the non-significance of the findings.

Recommendations for Further Research

The first recommendation for further research stems from the first limitation. For RQs 2 and 3, the sample size was lower than desired. Increasing the sample size would increase the power for these questions, helping to ensure statistical certainty. Secondly, I did not account for the drivers' perceptions and experiences of their inclusion in support teams, training, and challenging behaviors. Further research might include qualitative approaches, including mixed-methods designs. Exploratory qualitative research also would be valuable to support or refute previous findings and identify factors specific to nonemergency transportation drivers because of the lack of research in this area. Longitudinal research might also help future researchers to understand how the perceptions of nonemergency transportation drivers toward challenging behaviors change over time.

Researchers might also focus on how to adapt the Positive Behavior Support Curriculum to nonemergency transportation drivers. Consideration should be given to developing or tailoring a curriculum designed to address challenging behaviors as they

occur during transportation and how drivers can successfully address challenging behavior while maintaining safety for client and themselves. It may also be that changing perceptions of drivers is not important; researchers might seek to confirm whether perceptions of challenging behaviors matter in drivers. Future researchers should also consider longitudinal studies to help determine whether drivers' perceptions of challenging behaviors change over time. This may help to strengthen the use of strategies and build positive perceptions of individuals with IDs exhibiting challenging behaviors. Lastly, I found that 44.2% of study participants participated in support teams. What were not gleaned from the current study were drivers' perceptions of their roles within support teams. Future studies may consider support team exclusion, as it may help researchers to understand how drivers view their roles within clients' overall support system.

Social Implications

I found that there were no significant differences between new and veteran drivers regarding perception of behaviors before training, or between new and veteran drivers regarding perception of behaviors after training. These findings may provide information to organizations that provide service to individuals with IDs that the Positive Behavior Support Curriculum is not effective for drivers or that the curriculum needs to be tailored for the needs of drivers. Targeted training for drivers may lead to positive social change by leading to positive perceptions among drivers and potentially better service for individuals with IDs.

Additionally, descriptive statistics suggested that 53.8% of the participants have never received training while 55.8% of the participants have never attended a treatment

team meeting on behalf of an individual in their care. Over half of the participants in this study have not been formally invited to a support team meeting for an individual that they are providing services for. This suggests that drivers are being isolated from the support community. MacLeod et al. (2014) indicated that involving the medical community could result in better coordination with nonemergency medical transportation. Perhaps this study can help start a dialogue for encouraging and seeking out driver participation on treatment teams. The drivers may have information that the team can benefit from when preparing supports for individuals with ID and challenging behaviors.

Conclusion

The purpose of this study was to examine whether positive behavior support training had an impact on the perceptions of nonemergency transportation drivers related to challenging behavior exhibited by individuals with IDs. Insight into the perceptions of transportation drivers may help nonemergency transportation companies recognize the need for positive behavior support training to support staff in addressing challenging behaviors. I found, however, that there were no significant differences between new and veteran drivers regarding perception of behaviors before training, or between new and veteran drivers regarding perception of behaviors after training.

The findings of nonsignificance in the differences of perceptions amongst veteran and new drivers in the present study indicate that perceptions of drivers do not change over time. It may be that drivers' perceptions of challenging behaviors may not be important to drivers' ability to support individuals with IDs. Or, it may be that Positive Behavior Support Curriculum is not effective or that it may need to be tailored for the

needs of drivers. Nonemergency transportation drivers may require a support training approach adapted to their support roles. Providing frequent and consistent support training targeted to drivers may lead to positive organizational and social change by changing drivers' perceptions toward challenging behaviors, potentially allowing drivers to provide better service for individuals with IDs.

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Appendix A: Letter to Site

November 15, 2015
Logisticare contracted transportation owners/drivers
RE: Permission to Conduct Research Study

I am writing to request participation of your drivers in a research and training opportunity. I am a doctoral student enrolled in the Counseling Psychology Program at Walden University in Minneapolis,MN. The name of the study is Communication Training and Non-Emergency Transportation Driver Perception of Challenging Behavior.

I am hoping to garner at least 60-65 participants from various transportation agencies in the Richmond, Virginia and Tri cities areas (Hopewell, Petersburg, Colonial Heights). Participants will be asked to complete a demographics questionnaire, attend a 4 hour training, and complete the Challenging Behavior Attribution Scale prior to the training and immediately after the training has concluded. Participants will receive a 20$ Wal-Mart gift and a certificate recognizing their participations. Additionally, all participants will receive a reference guide on Positive Behavior Supports that will be theirs to keep after the training has commenced. This is a free training to participants. The individual or agency participating will incur no cost. Agencies will also receive acknowledgement in the completed dissertation.

Should your agency agree to participate, the study will take place during a time that does not disrupt workflow. The training will be held on a Saturday to reduce interruptions and will be held a convenient location with light snacks for participants.

Allowing your drivers to participate in this study is greatly appreciated. Should you have any questions or concerns please feel free to contact me at [redacted] or e-mail me at Priscilla. Wright@WaldenU.edu. Also I will place a follow up call within 1 week.

If you agree to allow your drivers to participate in this study, please sign the enclosed form. Again your participation is highly appreciated.

Sincerely,

Priscilla Wright, Researcher
Doctoral Candidate
Walden University

Enclosures
Informed Consent
Demographic Survey

cc: Dr. Mathew Fearrington Dissertation Chair
Dr. Anne Marie Murphy Committee Member
Approved by:

_____ _____ _____

Print your name and title here Signature Date

Appendix B: Demographics Questionnaire

Participant ID_____

Demographics Questionnaire

The purpose of the questionnaire is to gather basic background information as well as to understand if you have participated in a team meeting concerning the challenging behaviors of an individual you provided transportation for.

For the following questions, please check only one answer.

1. Gender _____ Female_____ Male

2. What is your age? _____

3. What is your Race? _ African American _ Native American _ Asian American _Caucasian __ Hispanic American or ____ other ____ Multiracial
4. What is your marital status? ___Single ____ Married ___ Divorced ____Widowed

5. What is your annual income? ___ 0-15k; ___ 15-25k ____25k -35k ____35k-45K ____ Over 45k

6.Level of education: ___ Did not graduate high school ____GED ____ High School Graduate ____Some College ___Associates Degree ____Bachelor's Degree ___ Master's Degree ___Doctorate Degree

7. How long have you been in current position: ____ years ____ months
8. Have you ever participated in a behavior support meeting regarding how to support and individual with intellectual disabilities who exhibited challenging behaviors ____Yes or __No
9. Have you participated in Positive Behavior Support Training in the past? _____Yes or ____No
10. If you answered yes to question 9, How long ago was that training? __ I have never received training in PBS ___less than 3 months ago ____ less than 6 months ago ____ less than one year ago ___ over 1 year

Thank you for your participation

Appendix C: Positive Behavior Support Curriculum Authorization

Email from developer of the Positive Behavior Support Curriculum 2nd addition authorizing use of training components

From: drhmc@vistatech.net
Date: August 22, 2015 at 7:48:13 AM EDT
To: priscilla.wright@waldenu.edu
Subject: PBS training
Reply-To: drhmc@vistatech.net

Ms. Wright,

Glad you are interested in pursuing PBS. Regarding using the AAIDD PBSTC for some of your training with van drivers, it is certainly fine to select those parts of the Curriculum that are most relevant for your purposes and train with just those parts.

Good luck with your work.

Denny Reid

Appendix D: Permission to use CHABA

E-mail from developer of the Challenging Behavior Attribution Scale giving permission of use

From: Richard Hastings <r.hastings@bangor.ac.uk>
Date: May 10, 2012 at 1:44:54 AM EDT
To: Priscilla Wright <priscilla.wright@waldenu.edu>
Subject: Re: CHABA
Reply-To: Richard Hastings <r.hastings@bangor.ac.uk>

Dear Priscilla

You are very welcome to use any of our measures that may be helpful for your research. I have attached some basic information.

Good luck with your dissertation

Best wishes

Richard

On 09/05/2012 20:28, Priscilla Wright wrote:

Hello Dr. Hastings,

My name is Priscilla Wright and I am in the counseling psychology program here at Walden University. I am conducting my dissertation on the following topic: Direct support professionals perception on the efficacy of duel diagnosis training. I would like to have permission to use the Challenging Behaviour Attributions Scale in my research. Thank you in advance for your consideration.

Sincerely

Priscilla Wright
Student in Counseling Psychology