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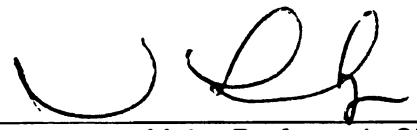

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THE ATTITUDES OF DIRECT CARE WORKERS TOWARDS PERSONS WITH DISABILITIES: AN EXPLORATORY STUDY

By

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ABSTRACT

THE ATTITUDES OF DIRECT CARE WORKERS TOWARDS PERSONS WITH DISABILITIES: AN EXPLORATORY STUDY
By

Abdoulaye Diallo

The purpose of this study is to examine the attitudes of direct care workers (DCWs) in group homes towards PWDs. This study also investigated DCWs' demographic and other variables on their attitudes towards PWDs. The scale of attitudes towards disabled persons (SADP) questionnaire was administered to a purposive sample of 108 direct care workers in four group homes companies in the Lansing area. Of the 108 participants, 104 responded, but six participants were dropped from the studies because they did not answer most of the questions, resulting in 98 usable questionnaires, a 90 percent response rate. Quantitative analysis, using descriptive statistics to investigate DCWs' attitudes and general linear model to investigate the effects of DCWs' demographic and other variables on their attitudes towards PWDs. Regarding DCWs' attitudes, both their general and specific attitudes, that is DCW's optimistic, behavioral misconception, and pessimism attitudes, were investigated. For variables that had effects on DCWs' attitudes, comparison were made regarding differences within the variables to see different categories' or groups' effects.

Results show that DCWs in the group homes had moderate positive attitudes towards PWDs, in both their general and specific attitudes. Result regarding DCWs' demographic and other variables' effects on DCWs' attitudes shows that some variable had effects while others did not. Comparison within variables shows significant

differences between and among some of the groups, indicating that some variable had more positive or negative attitudes than others, and non significant differences in others. (1) The overall attitudes of DCWs towards PWDs were general positive. (2) Training needs, knowledge about disability, and contact with PWDs and had an impact on their overall attitudes towards PWDs. (3) DCWs' attitudes towards PWDs in relation to the SAPD subscales were positive for the SADP's three subscales. (4) For training needs, in all the scales, only the means of those whose training needs were a combination of directly working with clients (DWC), learning about disability (LAD), and helping individual with disability (HIWD) were significantly different from the means of all the other groups. (5) Contact had effect on the SAPD scale, and its subscales, 2 and 3. All of the subtypes of "contact" positively affected the attitudes of DCWs in the SAPD scale. (6) For "population DCWs worked with" in subscale 2, those who worked with brain injuries (BI) and those who worked with a combination of those with mental retardation (MR) and psychiatric disability (PD) had negative attitudes. 7) For "knowledge about disability," all the categories under knowledge had positive effects towards PWDs.

There are implications for training and research. Increasing DCWs' level of knowledge about disability can help their attitudes towards PWDs. Research can focus on the training needs of PWDs since training needs have the potentials of affecting DCWs' attitudes. Also, research can focus on the type of contact and how they affect DCWs' attitudes. Furthermore, researchers should replicate this study with different DCWs to see whether they can find similar results as this study, and they can focus on which type of knowledge can positively impact DCWs' attitudes.

DEDICATION

This dissertation is dedicated to my late nephew, Salamana and my late first cousin, Salamatou, both of whom had disabilities, my late mom and dad, Mr. and Mrs. Diallo, who also had disabilities in their old age, my uncle, who is visually impaired, and to all those who have or will have disabilities.

BOOK BLESSING

Good intentions, even the smallest ones, are steps to good and noble things. The hands that help make them come to fruition are holy and pure hands that have the potentials of making the impossible possible, including helping all to have positive attitudes towards person with disabilities.

~ Abdoulaye Diallo

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This dissertation would not have been accomplished without the help and guidance of my dissertation committee, Dr. Michael Leahy, Dr. Kosciulek, Dr. Nancy Crewe, and Dr. Susan Peters. A special recognition goes to Dr. Leahy, my advisor and dissertation committee chairperson, for his guidance and support throughout the dissertation process. I also want to acknowledge Dr. Douglas Campbell for editing the dissertation, and the group home organizations and their staffs who participated in the dissertation study.

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LIST OF ABBREVIATIONS

PWD	Persons with Disabilities
DCW	Direct Care Workers
ADA	The American with Disability Act of
SAPD	Scale of Attitudes towards Persons with Disabilities
DWC	Directly Working with Clients
LAD	Learning About Disability
HIWD	Helping Individuals with Disabilities
NN	No Needs
BI	Brain Injury
DD	Developmental Disability
MR	Mental Retardation
PD	Psychiatric Disability
O	Other
VLCPWD	Very Little Contact with persons with disabilities
LC Little	Contact with persons with disabilities
SC	Some Contact with persons with disabilities
FC	Frequent Contact with persons with disabilities
VFC	Very Frequent Contact with persons with disabilities
EC	Extensive with persons with disabilities
NVK	Not Very Knowledgeable
K	Knowledgeable
VK	Very Knowledgeable

CHAPTER I

INTRODUCTION

Society can provide and ensure that persons with disabilities (PWDs) receive the best quality of service. For example, legislators can pass laws that include the interest of PWDs, and health care workers can dispense services to PWDs. Likewise, rehabilitation counselors and other rehabilitation professionals can focus on the strengths of PWDs and empower them to reach their maximum potentials. Direct care workers (DCWs) can provide a supportive and safe environment in which PWDs can learn and grow. In positively serving and affecting the lives of PWDs, the attitudes of society in general, and of DCWs specifically, towards PWDs are invaluable. According to Smart (2001), negative attitudes of people make it more difficult (than the disability itself) to live a fulfilling life. A negative attitude can result in less opportunity for PWDs, whereas a positive attitude can lead to opportunities that can benefit PWDs (Smart). Ultimately, the quality of lives, which according to Livneh (2001) is the ultimate goal of rehabilitation, can be affected by attitudes towards PWDs. It is therefore worth investigating the attitudes of DCWs, who work daily with PWDs and provide valuable services, such as training in hygiene, cooking, and other related tasks, so that PWDs can live more independently.

While research in attitudinal studies of PWDs in the rehabilitation literature has focused on rehabilitation professionals (Benham, 1988; Emener, 1977; Kaplan & Thomas, 1981; Parkinson, 2006; Spengler, Strohmer, & Prout, 1990), (Byrd, Byrd & Emener, 1977; Huitt and Elston, 1991) and employers ((Bowman, 1987; Brostrand, 2006; Farina & Felner, 1973; Gordon, Minnes, and Holden, 1990); Olkin, 1999;

Satcher, & Dooley-Dickey, 1992), studies have overlooked the attitudes of DCWs in general towards PWDs as well as the attitudes of specific groups of DCWs (e. g. DCWs with experience and those without much experience, DCWs with more education and those with less education, females and males DCWs). Yet, DCWs are the ones who work directly and daily with PWDs, doing important tasks in the implementation of treatment plans developed by counselors, managers, and other professionals. DCWs in general and specific groups of DCWs are in a significant position to greatly impact the lives of PWDs, including their quality of life.

Statement of problem

This study is an exploratory investigation of the attitudes of direct care workers (in group homes) towards PWDs. Attitudes, both negative and positive, towards PWDs go back to ancient times and have manifested themselves in several ways. The sources of these attitudes include faulty information, economic and safety threats, emphases on fitness, beauty and youth, spread or overgeneralization, the need to secure resources for and to protect society, and the need to treat others humanely (Smart, 2001). We see the effect of false beliefs and the need to protect society, for example, in the Greek and Roman era. The false belief that a fault in the soul also means a fault in the body (Dickinson, 1961) can predispose people to a negative attitude towards PWDs (Lee & Rodda, 1994), and likewise the need to defend and to provide for society can lead to support for the healthy young while neglecting those with disabilities (Wright, 1980). However, during this ancient time, there were also positive attitudes towards PWDs, for accurate information that disability is not the result of Gods punishment (Wright),

but rather a brain pathology and environmental conditions, led to positive treatments, such as the creations of recreation centers for PWDs (Rubin & Roesler, 2001).

In early America, where focus was on survival, PWDs received poor treatment, while in 19 century America, humanitarian religious beliefs encouraged the successful to help the unfortunate and PWDs received more positive treatment. For example, society provided the resources to create rehabilitation programs for PWDs. However, the post-civil war period, there were the Eugenics and Darwinism movements which did not favor positive attitudes towards PWDs because PWDs did not meet their standards (Riggar & Maki, 2004). The former wanted to improve the inborn quality of people (Glad, 2007) and the latter was interested in keeping only the "strong" who are not burdensome to society (Leonard, 2009). There was also the segregationist attitude, with special programs that separated the "deviant" from the normal." At these times in history, PWDs were seen as dangerous and the need to protect society led to negative attitudes, which in turn led to incarceration of some PWDs (Rubin & Roesler).

In our current society, the treatment of PWDs is far better compared to the past. However, unfair treatment continues (Smart, 2001). Currently, PWDs are often denied their right to exercise choice and control over basic aspects of their lives (Kosciulek, 2000), including living arrangements, work, and recreation (Kosciulek, 1999a). A large number of PWDs can be at risk of experiencing social stigma (Phemister & Crewe, 2004), through which they were therefore also avoided (Siller, 1963). In employment they face discrimination (Olkin, 1999). The spread or overgeneralization effect can influence employers. Here, they can discount or underrate the abilities of a PWD

because the person has an impairment, assuming that a physical or other impairments also means lack of intellectual or other abilities (Smart).

These cases of negative attitudes towards PWDs in the past and present show the baneful consequences PWDs face. These consequences can lead to behaviors (Chubon, 1992; Corrigan, 2006) such as bias and discrimination, which in turn can result in fewer opportunities in employment (Brostrand, 2006; Smart, 2004; Szymanski and Parker, 1996), in health care (Conover, Arno, Weaver, Ang, & Ettner, 2006; Stapleton, Livermore, and O'Day, Imparato, 2005), in education (Batavia and Beaulaurier, 2001; Komesaroff, 2004), and in other areas for PWDs.

For the functioning of negative bias, Yuker (1988) mentioned three conditions – saliency, value, and context. He made the point that if something stands out significantly or is salient, if it is seen or valued as negative, or if it the context is vague, the negative value placed on the thing will play a great role in guiding people's perception, thinking, and feeling to fit the thing's negative characteristics.

While efforts have been made to end these biases, discrimination and other unfair and inhumane treatments of PWDs, negative attitudes towards PWDs continues because, according to Smart (2004), it is difficult to legislate attitudes. For example, employers' and others' behaviors are often influenced by attitudes and beliefs instead of by the law (Smart). There is the potential of DCWs having negative attitudes towards PWDs because researchers (Comer and Piliavian, 1975; Oberle, 1971; Olkin, 1999) have shown that society at large, and even professionals, have negative attitudes towards PWDs.

However, as I already mentioned, we do not know much about the attitudes of DCWs towards PWDs. If direct care workers have negative attitudes towards PWDs, PWDs can face many of the same negative attitudes of society and resulting consequences mentioned above. To address this lack of knowledge in DCWs' attitudes towards PWDs, we need to focus research in this area.

Purpose of the Study

DCWs can enter the field of rehabilitation counseling with less preparation compared to rehabilitation counselors and other rehabilitation personnel, which can negatively affect their attitudes towards PWDs and ultimately the lives of PWDs. Accordingly, a negative attitude of a direct care worker (e. g., believing that PWDs cannot learn) in a shopping training for a PWD can lead to the DCWs doing the shopping instead of following a treatment plan and teaching and allowing the PWD to do his/her own shopping. Such attitudes can lead to dependence of PWDs all their lives. And because DCWs work with PWDs daily in many areas of their lives, we can see similar examples where PWDs are not benefiting from services if DCWs have negative attitudes towards them (PWDs). This shows a need for understanding the attitudes of DCWs towards PWDs in order to give them the help they need in best servicing PWDs

DCWs may have different levels of education and experience in working with PWDs and different motivations for choosing direct care work, and these and other factors, such as gender and race may influence their attitudes towards PWDs.

Studying the attitude of DCWs towards PWDs, including the relationship of DCWs' attitudes with the DCWs' motivation for choosing direct care work, the

DCWs' level of experience, the DCWs level of education, and the gender and race of DCWS are important ways to inform us and fill the gap in the literature on DCWs' attitudes towards PWDs. The population of DCWs is important because they work with PWDs more than six hours daily in most cases, implementing goals that are basic, but crucial to the lives of PWDs. Therefore, the purpose of this study is to investigate the attitudes of DCWs' towards PWDs in general, and the relation between DCWs attitudes towards PWDs and motivation for choosing a career (direct care work, for example), number of years worked, level of education, and the gender and race of DCWs. This study will be limited to DCWs in group settings.

Research Questions

1) What are the attitudes of DCWs' towards PWDs?

2) Will DCWs' motivation for choosing direct care work (in group homes) impact their attitudes towards PWDs?

3) Will DCWs' (in group homes) amounts of experience in working with PWDs impact their attitudes towards PWDs?

4) Will DCWs' (in group homes) level of education impact their attitudes towards PWDs?

5) Will other demographic variables (age, gender, and race) of DCWs affect their attitudes towards PWDs?

Significance of the study

The results of this study have the potential of extending existing knowledge in terms of the attitudes of direct care workers towards PWDs in the rehabilitation literature. More specifically, the rehabilitation counseling field can be informed about

DCWs' educational level, motivation for choosing direct care work, experience working with PWDs, the gender and race of DCWs, and the relationships of these factors with DCWs' attitudes towards PWDs. Administrators and managers can use this knowledge in employing the best employees.

There are also implications for the practice of rehabilitation professionals if DCWs and the specific groups have negative attitudes towards PWDs. Understanding the attitudes of DCWs towards PWDs can better help rehabilitation professionals to train DCWs and to help them provide the best service with positive attitudes towards PWDs. Employers (Gordon, Minnes, and Holden, 1990; Szymanski and Parker, 1996), rehabilitation counselors (Kaplan and Thomas, 1981; Parkinson, 2006), and students (Wong, Chan, Cardoso, Lam & Miller, 2004) have been found to have negative attitudes towards PWDs, and as a result these populations have been target for attitude change through attitude changing strategies (education and cognitive, for example). Likewise, Rehabilitation professionals can help DCWs with negative attitudes to benefit from attitudinal training, which ultimately will benefit PWDs.

Defining Terms

Attitudes: Attitude is defined as an idea that is filled with emotion and that predisposes a person to act in a certain way towards a person or a situation or an event (Triandis, 1971), and it consists of cognition, affect, and behavior (Clarke & Crewe, 2000). Attitudes of people towards PWDs can be affected by their motives for working with PWDs, their level of education (Rice, Rosen, & Macmann, 1991), and their years of experience working with PWDs (Benham, 1988).

Direct Care workers: Direct care workers in this study refer to employees who work directly with clients, providing a variety of services, including training clients in basic living skills, dispensing medication to clients, accompanying them to doctors and to other appointments, and many other important tasks. In general they work in hospitals, nursing homes, sheltered workshops, and group homes for individuals with developmental and other significant disabilities. In this study DCWs will be limited to DCWs who work in groups homes. Group homes for individuals with disabilities are homes where at least four clients with disabilities reside.

Disability: Disability is a long term or chronic medical condition (physiological, anatomical, mental, or emotional); that is, an impairment resulting from traumas, illnesses, disease, inherited or congenital defeats, or environments, which can cause a handicap. In other words, a disadvantage or barrier to performance or opportunity, or fulfillment in vocational, educational, or other roles, and/or functional limitation, which is an hindrance in performing tasks (e. g. difficulties in a college lecture as a result of learning difficulties) (Wright, 1980).

Quality of Life: Researchers have operationalized and defined quality of life in different ways. In the rehabilitation field, it includes social, psychological, physical well being, and health perceptions and opportunities (Chandrashekas & Benshoff, 2007). In their definition of successful outcome, vocational rehabilitation and independent living rehabilitation programs include quality of life; quality of life should include life satisfaction in relation to standards the consumer deems desirable or undesirable for him or her (Riggar & Maki, 2004).

In sum, this is an exploratory study in the field of rehabilitation that looks at the attitudes of DCWs towards PWDs. DCWs are in a position to affect the lives of PWDs, and ultimately their QOLs. However, little is known about their attitudes towards PWDs and research has shown that there are negative attitudes of society at large towards PWDs. The findings of this study can shed light on the attitudes of DCWs, which will in turn help administrators, rehabilitation professionals and others better help DCWs give the best service possible through positive attitudes towards PWDs.

CHAPTER II

LITERATURE REVIEW

The purpose of the proposed study is to investigate the attitudes of direct care workers towards PWDs. This chapter provides a review of important topics in studying DCWs' attitudes towards PWDs. The main topics included in this literature review include: (1) discrimination against PWDs, (2) attitudes towards PWDs, (3) education, experience, and motivation/rehabilitation field, and (4) scales measuring attitudes towards PWDs. This literature review encompasses work from many rehabilitation scholars as well as scholars in other field of studies.

Discrimination towards PWDs

Discrimination against PWDs is the fruit of negative attitudes. The American with Disability Act of 1990 (ADA) was passed after congress heard testimonies, many of which were emotional, about the unfairness of how PWDs were treated in employment and other areas (Rubin & Roesler, 2004). Whether the ADA has been successful in ending discrimination is debatable. On the one hand, many of its critics questioned whether the ADA has succeeded in helping a large number of PWDs participate in employment (Blanck, 1996). For example, according to Schur, Kruse & Blanck (2005), researchers disagree about the effectiveness of the ADA in helping PWDs gain employment. They further state that for those with severe work limitations, only about 25.4 % had employment in 1999. According to Bush (2001) and Kennedy & Olney (2001), the employment rates of individuals with severe disabilities remained static from 1991, when the ADA was passed, to 2001. According to Rubin and Roessler, twenty years after the ADA was passed to remove employment

discrimination and other barriers for PWDs, only about a quarter of working-age PWDs had full time employment. Schwochau and Blanck (2003) state that the ADA has failed in helping PWDs gain employment. According to Corrigan, Kerr, and Knudsen (2005), the success of legislation (including ADA) in protecting PWDs does not mean that employers will not discriminate against PWDs, since employers can find informal ways to deny employment to PWDs. Greenwood & Johnson (1987) also made points in this vein. They indicated that a compilation and synthesis of more than 90 studies spanning 40 years of research into employers' attitudes toward and concerns about workers with disabilities show that stereotypical attitudes towards PWDs persist.

Others, however, see the ADA as a success in helping PWDs. For example, according to Schur, Kruse & Blanck (2005), companies have hired more PWDs since the ADA. In addition, they state that progress has been made in public transportation accessibility, installations of curbs to streets and ramps to public buildings, and accessibility in new buildings. According to Blank (1996), the ADA has been successful in improving the participation of qualified individuals with disabilities in the labor force as well as in decreasing their dependency on the government.

Regardless of the success of the ADA, discrimination towards PWDs continues in our society. However, it is worth noting the points made by McMahon, Roessler, Rumrill, Hurley, West, Chan, Carlson (2008), who stated that while there is discrimination in gaining employment, most complains of ADA employment discrimination are in the areas of job retention and career advancement. They also indicated that studies in general have shown that negative attitudes are more towards

persons with behavioral disabilities; however, their research showed that discrimination in hiring is mostly towards those with physical or sensory impairments.

Employers have the same negative attitudes towards PWDs as does society at large (Szymanski and Parker, 1996). According to Brostrand (2006), employers may not be inclined to provide equitable employment for PWDs, and if employers have these negative attitudes, the corollaries can be discrimination, and employers' behaviors may be influenced by attitudes and beliefs instead of by laws (like the ADA). As a result there is the potential of PWDs losing the benefits of working, which according to Gonzalez (2009) is a socially recognized activity that provides emotional welfare and increases self esteem. Shur, Kruse, Blasi, and Blanck (2009), in their survey study of employers from fourteen companies, found that disability is linked to lower average wage, job security, training, participation in decisions, and negative attitudes towards job and company, which according to Uppal (2005) is likely due to discrimination, harassment, and other conditions in the work place. However, Schur, Kruse, Blasi, and Blanck also found that the above mentioned relationships varied from employer to employer and that PWDs benefited from employers who are responsive to the need of all employees.

Discrimination against PWDs in other areas, such as health care and education and training, to name but a few, are common place as well. According to Stapleton, Livermore, O'Day, and Imparato (2005), PWDs are discriminated against in health care and in getting resources from health care providers and other personnel. For example, they stated that only about 37% of those with severe disabilities receive means-tested government assistance. And, for those who receive these aids, they state

that it is not enough to get them out of poverty and that they cannot work and add to their income (because of restrictions). In addition to receiving inadequate resources, PWDs receive poor health care (Conover, Arno, Weaver, Ang, & Ettner, 2006).

In education and training, educators and others discriminate against PWDs. Education is very important, yet PWD witness discrimination in this area - 20% of PWDs do not have a high school degree (compared with 10% of our population without disabilities) (Batavia and Beaulaurier, 2001). According to Komesaroff (2004), it is the most important issues for those who are deaf, yet the most difficult on which to advocate and bring about change. Iacobelli (1970) surveyed employers regarding their attitudes towards regular and disadvantage workers and how their attitudes affect their willingness to train both types of worker without financial and other assistance from the government. They found that employers believe that the government should provide at least half of the training cost, be responsible for collecting and distributing the information and for coordinating nationwide training activities, and make the policies for local use. While companies believe that specific skills should be their responsibility, they indicated that remedial training should the government's and education system's duty. Such attitudes can lead to less education or training for PWDs, which, according to Batavia and Beaulaurier, can cause poverty.

DCWs are definitely not immune to these types of discrimination by professionals and others. As I have already stated, one of the main reasons for discrimination against PWDs is negative attitudes of society (Smart, 2004).

In order to meet PWDs' needs in the work place, Uppal (1996) indicated that we need a comprehensive approach that focuses not just on policies, but also on

attitudes, including investigating the attitudes, values, and beliefs of both management and staff, including DCWs as a whole. The next section n will discuss the attitudes of society towards PWDs.

Attitudes of society towards PWDs

Negative attitudes as opposed to positive attitudes (which include friendliness and interaction) entail avoidance and rejection (Antonak & Livneh, 1988). Ambivalent attitudes, on the other hand, are dual, in the sense that there is feeling of aversion, on the one hand, and compassion on the other (Katz, Hass, & Bailey, 1988). This section is divided into these subsections: 1) dimension and formation of attitudes, 2) attitudes of particular groups towards PWDs, 3) instruments used to measure attitudes towards PWDs.

Dimension/Structure/formation. According to Antonak and Livneh (1988), two dimensions are usually considered, namely abstractness and extensiveness, when defining attitudes. In the former, according to Antonak & Livneh, attitude is not directly observed, but rather inferred, and they are seen as residing within us. Here, they further state that attitude can be evoked by specific reference objects (individuals, for example), which can elicit an attitude response from the subjects. Extensiveness, the second component, can be structurally categorized into a cognitive (individual ideas, thoughts, perception, etc. about the attitude reference), an affective (feeling or emotional aspects of attitudes), and a behavioral component (intent or readiness to behave in a particular way towards the attitude object) (Antonak & Livneh).

Moreover, Antonak & Livneh (1988) state that there are those who define attitude narrowly, not including the cognitive and behavioral aspects. Additionally,

they made the point that despite the lack of consensus in defining attitude, there are some agreements, and these include: a) attitudes are learned, b) they are complex, multi-component, structure c) they are relatively stable, e) they have special social objects as a referent, f) they vary (in quality and quantity), and g) they are manifested behaviorally. What are the sources of these negative attitudes?

Attitudes formation. The sources of these negative attitudes include fear (Siller, 1963), faulty information, economic threat, threat to safety, threat to the cultural emphasis on fitness, beauty and youth, and spread or overgeneralization of the effect of the disability (Rubin & Roessler, 2001). Based on Fishbein and Ajzen's framework of attitude formation, negative attitudes are the results of faulty information about disability and PWDs (Hunt & Hunt, 2004). In spread or overgeneralization, for example, an employer can discount or underrate the mathematical or supervisory ability of PWDs by assuming that the person with a visual (or another impairment) also has mathematical, supervisory or other impairments (Smart, 2001). In other words, the employer might generalize a visual impairment to other areas of the individual. Siller (1984) mentioned the relationship between personality and attitudes towards PWDs, indicating that personality characteristics, such as anxiety, hostility and rigidity, are related to negative attitudes towards PWDs. These sources of attitudes have led society to have negative attitudes towards PWDs (Smart).

People in general can form attitudes (positive or negative) towards PWDs. With the general population, English and Oberle (1971) found that almost one-half have positive attitudes toward individuals with disabilities, while Comer and Piliavian (1975), on the other hand, state that more than one-half have negative attitudes toward

those with disabilities. Particular groups, such as employers, rehabilitation counselors, health care workers, DCWs and others are not immune to having negative attitudes towards PWDs.

Attitudes of particular groups

Employers. Employers have the same negative attitudes towards PWDs as society at large. Expectation plays a crucial role in attitudes towards PWDs (Szymanski & Parker, 1996). According to Gordon, Minnes, and Holden (1990), negatively valued expectations are shaped by negative attitudes towards the disability, and employers act upon these negatively valued expectations. Along this vein, Schloss and Soda (1989) made the point of how labeling individuals as "mentally retarded" lowered employers' expectations for the individual's success in a job, while the employers' expectation was raised for more involved training. Farina & Felner (1973) found that employers' expectations were full of interview bias towards those with psychiatric disabilities and were resistant to employ those who had been injured at work. Some stereotypes of workers towards PWDs are expectation of weakness and lack of work-related competency (Bowman, 1987). Since strength and competencies are considered highly valued factors in employment, employers with such attitudes and the expectations that follow from them can engage in discrimination in selecting PWDs for employment (Satcher, & Dooley-Dickey, 1992), and, possibly, in other employment issues. According to Brostrand (2006), employers may not be inclined to provide equitable employment for PWDs, and if employers have these negative attitudes, the corollaries can be discrimination. (Brostrand). Olkin (1999) states the attitudes of employers

towards recruiting, hiring, retraining, and promoting individuals with disabilities are crucial to the overall well-being of individuals with disabilities.

Rehabilitation Counselor. The disagreement as to whether therapist/student counselors have negative attitudes toward those with disabilities is evident in the literature. Some have found that counselors have negative attitudes towards PWDs (Benham, 1988; Emener, 1977; Kaplan & Thomas, 1981; Parkinson, 2006; Spengler, Strohmer, & Prout, 1990), while others have found the opposite; that is, counselors have positive attitudes towards PWDs (Byrd, Byrd & Emener, 1977; Huitt & Elston, 1991).

According to some studies, negative attitudes towards PWDs have to do with the disability type or the characteristics of a disability subculture. Schofield and Kunce (1971) studied specific attitudes of six counselors (working in a Jewish vocational service) towards specific disabilities in different contexts. These contexts were evaluation of workshop performance, evaluation of clients' employability, counselor-client interaction based on rate of drop out, and counselor-client interaction based on recommendation for work adjustment programs. In the first situation, they found that the counselor differed significantly with regards to the three types of disability group used – physical, mental, and emotional disabilities. In the second case, evaluation of employability, they found that counselors differed in regards to the emotional disability group, but did not in how they viewed the employability of the two other disability groups. With all the PWDs combined, they found that counselors differed significantly regarding employability. With respect to drop out rate, the third case, there were no significant differences among the counselors. For recommendation for work

adjustments, counselors differed significantly. They believe those with physical and mental disabilities do not need such program, as opposed to those with emotional disability.

Eberly, Eberly and Wright (1981) found that rehabilitation students were biased towards those with physical disabilities, preferring to work with those with non-physical disabilities even though their description (resourceful, sincere, warm, etc.) of those with physical disabilities were more positive than those with non-physical disabilities. While Wong, Chan, Cardoso, Lam and Miller (2004) found that therapy students had negative attitudes towards those with mild disabilities, they found that these students were not biased towards those with severe disabilities.

Along this vein, Olkin (1999) stated that attitudes towards PWDs vary from disability to disability and they are influenced by severity, visibility, tractability, degree of transmissibility, and effect on life expectancy. Asthma and diabetes, for example, are low on these dimensions, and as a result fewer negative attitudes result towards those with such disabilities. Some of the disabilities that are highly ranked, for example, are deafness, blindness, and amputation of one leg (Olkin). At the lowest rank are those with paraplegia and quadriplegia, and cerebral palsy (Olkin). According to Smart (2001), the least stigmatized disability is physical disability, and then cognitive and intellectual disabilities; and the most stigmatized is mental disability.

Students. Royal and Roberts (1987) studies the attitudes of students based on age and gender. They were asked to rate disabilities in terms of their visibility, severity, acceptability, and familiarity. They found that generally sixth to twelve grade students had more positive attitudes than third graders, and that females had more positive

attitudes than males. Also, they found that third grade students rated visibility the highest and familiarity and acceptability the lowest, and males gave significantly higher rating than did females on severity.

Likewise, Hergenrather and Rhodes (2007) investigated the attitudes of undergraduate students towards PWDs in three different contexts – dating, marriage, and work. The mean score for work was the highest, followed by the mean score for marriage. Gordon (1990) had similar results. In this study the attitudes of women across the three contexts were significantly higher than those of men. It is worth addressing social context in attitudinal studies, because further influence may be identified and thus may be helpful in formulating strategies to change attitudes (Gordon, Tantillo, Feldman, Perrone, 2004).

Byrd, Byrd, and Emener (1977) compared the attitudes of students with those of counselors and employers in regards to employability towards those with severe disabilities. According to Byrd, Byrd, and Emener, the perception of severity is an important variable of employment for those with a severe disability. They found that while employers ranked alcoholism as the most severe of the disabilities, students and counselors ranked it twelfth and fourth respectively. For blindness, employers ranked it second, counselors ranked it first, and students ranked it fifth. Employers' and counselors' perceptions of employing those with severe disability are closer than students perceptions and they pointed out that this might be due to the counselors' and employers' regular contact with those with severe disability.

The attitudes of students towards PWDs have also been compared based on race. Chan, Tsang, and Corrigan (2006) compared the attitudes of American students

towards PWDs to those of Chinese students, and found that American students are more positive than Chinese students. Also, Ribas (2007) examine the attitudes of Portuguese students towards those with behavioral disabilities; her results showed that the students had positive attitudes compared to the results of previous studies that had investigated the attitudes of Asian and North American students. Attitudes towards those with intellectual disabilities by Korean descent in the United State were examined by Fong (2007). The result showed that the participants' attitudes were negative.

Other health care professional. Benham (1988) focus of specific attitudes was on infants with Downs Syndrome. He used occupational therapists of different professional level, areas of practice, years of practice, and geographical region. The result for attitudes towards PWDs in general showed that those with sixteen or more years of practice had significantly more positive attitudes than those with six to ten years of experience. For Downs syndrome, they found that the therapist had positive attitudes; however, among the variables for professional level, area of practice, or geographic location there were no significant differences. Nevertheless, with both students and practicing personnel, there was a significant difference in the year-of-practice variable. Those with less than five year experience and eleven and above had positive attitudes; however, there found a decline in the favorable attitude between ages six and ten. Benham found that occupation therapists differed in regards to their attitudes towards PWDs in comparism to other health care professionals and he pointed out that the reason might be due to the occupational therapist's profession emphasis on the intrinsic worth of people.

Strohmer, Grand, Purcell (1984) used a heterogeneous group of university personnel (faculty, professional, and nonprofessional) to strengthen the view that attitudes vary based on interaction between disability type and social context. They found that increased contact with PWDs, younger in age, and with higher levels of education were better predictors of more positive attitudes towards PWDs in general. Regarding marrying PWDs, increased contact and younger age were the best predictors of more positive attitudes. In the dating situation, increased contact and higher educational level were also the best predictors for favorable attitudes. In these situations, religion, gender, and socioeconomic status were not significant in this dating situation either. Strohmer, Grand, and Purcell indicated that attitudes towards PWDs should not be seen in a simplistic, one-dimensional way and that research should take into account both the disability type and the social context.

As we have seen above, it is worth noting that the attitudes of society in general and of particular groups can take different directions when certain social contexts, disabilities, and gender and race are considered (Strohmer, Grand, Purcell, 1984). Others (Ajzen & Fishbein, 1980; Akhidenor, 2007; Fong, 2007; Ribas, 2007; Siller, 1976; & Yuker, 1983) have also indicated the importance of social context and of gender and race in attitudinal study.

There is scant research on the attitudes of DCWs towards PWDs. Researchers studying attitudes towards PWDs have focused more attention on attitudes of professionals and students (and on comparative studies, comparing different cultures). The literature on DCWs' attitudes has focused on attitudes toward work and on job satisfaction; there is a dearth of knowledge on attitudes towards clients. The little

literature there is about DCWs' attitudes towards PWDs usually focuses on just a small part of DCWs attitudes. For example, Rice, Rosen, and Macmann (1991) focused on expectation of DCWs regarding the learning capacity of PWDs in a residential facility. However, attitude towards PWDs is more than just one issue or one aspect of human. Attitude also encompasses cognition, affect, and behavior (FIndler, Vilchinsky, and Werner, 2007), and factors such as optimism-human right, behavioral misconceptions, and pessimism-hopelessness should be considered in attitudinal studies (Antonak, 1982). The focus has also been on attitudes towards work (work satisfaction) or attitudes towards diversity (ethnic clients). For example, Terry ((1990) focused on nurse aides' attitudes towards ethnic patients in nursing homes, and not on the general attitudes of DCWs towards PWDs in the nursing homes.

In addition to the lack of research on the attitudes of DCWs towards PWDs, very little is known about factors such as motivation for choosing direct care work, experience working as a DCW, DCWs' level of education, and DCWs' gender and race and how these factors can influence the attitudes of DCWs. The following section will briefly focus on these factors in the rehabilitation counseling in general.

Education, experience, and motivation in rehabilitation counseling

Education and Experience

In the rehabilitation field, rehabilitation counselors and other professionals, like the vocational specialist, are required to possess a certain level of education and experience through practicum and internship. The VR Act of 1954 provided grants for colleges and universities to train rehabilitation professionals, and this initiative led to masters' degree programs (Rubin & Roesler, 2001) for rehabilitation counselors.

Rehabilitation counselors should take a certain number of graduate classes and have a minimum of 100 hours of supervised rehabilitation counseling practicum (40 hours of direct work with PWDs) and 600 hours of internship (CORE, 2006). For certified rehabilitation counselors, Leahy, Chan, and Saunders (2003) have identified the knowledge requirement. However, the qualification for direct care work is a high school diploma, with no experiential obligation to fulfill. Nevertheless, there are many with BA and even MA degrees who work as direct care workers.

There are certification and licensure requirements in some instances, for rehabilitation counselors to be certified rehabilitation counselors and limited professional counselors. DCWs, on the other hand, do not need certification to work in group homes. In many cases, direct care workers get their training during orientations and through on the job training by informal means from managers or coordinators.

The above requirements for rehabilitation counselors are meant to prepare them to provide excellent services to PWDs. A question that begs an answer is whether DCWs also need training in order to provide excellent services for PWDs. Lack of training can be detrimental to PWDs. There are no studies to determine the type of educational or experiential training needed for this paraprofessional population in order to better serve PWDs.

There is potential for the DCWs' level of education and experience to impact their attitudes towards PWDs. Rice, Rosen, & Macmann (1991), in studying the attitudes of DCWs' attitudes in regards to their expectation that clients will show improvement in what they teach clients, found that level of education was related to DCWs' expectations about clients' ability to learn. Also, Angharad (2009), using

children and young adults, showed that education does play a role in changing negative attitudes towards PWDs.

Benham (1988) studied the relation between experience as rehabilitation counselors and attitudes towards PWDs. She found that beginning (less than 5 years experience) and very seasoned counselors (16 years or more of experience) had positive attitudes towards those with disabilities, whereas semi-seasoned counselors (between 10 to 16 years of experience) had negative attitudes. Such potential influence of level of education and of experience in working as a direct care worker can shed light in understanding the attitudes of DCWs.

Motivation

Why do we choose certain careers? According to Theodore Caplow's theory, career results from random events, accidents (of heritance such as race), errors of being in the right or wrong place, etc. Others, however, do not subscribe to Caplow's random movement of career choice. For example, Donald Super's theory is based on the notion of a person's self concept or interests and abilities, and John Holland's theory sees a person's personality as the key factor in choosing a career (Kottler & Brown, 1992). Robert Hoppock and Anne Roe, who depart from the views of the Donald and Super, focus on satisfying personal needs. They emphasize need satisfaction as playing the key role in career choice. Others like John Krumboltz have taken both genetics (ability) and the environment (economic climate) (that can be outside a person control) into consideration in determining why people choose certain careers (Kottler & Brown).

In the rehabilitation counseling field, there are studies that have investigated the motivation for choosing rehabilitation counseling as a profession. Szymanski and

Parker (1995), Bishop (2001) and Garske (1999) found that rehabilitation counselors were motivated to work as counselors in the state/Federal VR system because they wanted to help others and because of the creative and autonomous aspect of the job. Szymanski and Parker (1995) found that the challenges and the nature of their jobs influence counselors in choosing their field of work. Garske (1999) also found the challenge of the job as a factor; in addition, he found that the diversity of the job played a part in counselors' choices. On the other hand, Bishop (2001) found that the need to learn and grow motivated the counselors. Motivation of choosing a career is likely to affect work, and perhaps attitudes towards PWDs. But there are no studies that have investigated the motivation for choosing direct care work or the relation between motivation for choosing direct care work and attitudes towards PWDs.

There is the potential of motivation for choosing direct care work to affect the attitudes of DCWs towards PWDs, including the quality of service they provide for PWDs. Bishop (2001), in investigating the motivation for choosing rehabilitation counseling as a profession, pointed to the importance of understanding motivation: that it is important to the extent that it relates to the quality of life of PWDs. Similarly, understanding the motivation for choosing direct care work can be invaluable to the extent that it is connected to attitudes towards PWds and the quality of service to them. Motivation is related to job satisfaction (Bishop), and job satisfaction is likely to affect job quality of service to PWDs, and perhaps even attitudes towards PWDs.

Gender and Race

Based on the research mentioned above gender and the race of people also play a role in people's attitudes towards PWDs. However, as I have already stated little is

know about the attitudes of DCWs based on gender and race. There is the potential of DCWs' gender as well as their race affecting their attitudes towards PWDs.

Measuring Scales

Attitude scale are mostly direct measurement, that is, participants are informed that their attitudes are being measured or they are aware of it (because of the attitude measuring techniques) (Livneh & Antonak, 1994). Some of the instruments measure attitudes towards PWDs in general, while others focus on attitudes towards specific disabilities. For example, attitudes Toward Disabled Persons Scale measures attitudes towards individuals with physical disabilities as a group (Yuker et al., 1966); the Disability Factor Scale measures attitudes towards individuals with various physical disabilities and chronic illnesses (Siller et al., 1967); the Disability Social Distance Scale focuses on measuring attitudes towards individuals with specific disabilities (Tringo, 1970); the Acceptance Scale focuses on measuring attitudes towards peers with physical disabilities integrated into regular classes (Voeltz, 1980); the Scale of Attitudes Toward Disabled Persons is centered on measuring attitudes towards PWDs as a group (Antonak, 1982); the Disability Social Relationship Scale measures attitudes towards individuals with epilepsy, blindness, CP, and arm amputation (Grand, Bernier, Strohmer, 1982); the Issues in Disability Scale focuses on measuring attitudes towards various physical disabilities and PWDs in general (Makas et al., 1988); and the Interaction with Disabled Persons Scale is centered on measuring discomfort in social interaction with PWDs (Gething & Wheeler, 1992) (Findler, Vilchinsky, and Werner, 2007). Livneh and Antonak made the point that, the effectiveness of these scales notwithstanding, these instruments face validity threats. For example, participants may

be sensitized to a particular attitude domain (response sensitization). In this case, because in reality they may not have knowledge about the domain, they may be responding to a domain they have no disposition towards, and therefore their response will be erroneous. Or they may become aware that their attitudes are being measured (reactivity). As a result, they may refuse to provide personal responses or try to please the researcher or try to give good a impression of themselves. Another problem is responding to all the questions in the same way (response styles); for instance, they may indicate disagreement on all the questions or they may choose a middle ground and indicate somewhat agree (Livneh & Antonak). Because of the construct and external validity problems faced by direct measures, researchers can also use indirect methods, where participants are not aware that their attitudes are being measured (Clarke & Crewe, 2000).

In sum, attitudinal studies towards PWDs have centered on attitudes of rehabilitation counselors, health professional, and students. The research on the attitudes of DCWs towards PWDs have focused on a minute part of DCWs' attitudes towards PWDs (e. g., learning capacity of PWDs), making it difficult to understand their general attitudes towards PWDs.

Negative attitudes towards PWDs can vary depending on the types of disability, the gender and race of people, social context, and many other variables. Future research can take these variables into account when examining the attitudes of DCWs towards PWDs.

In summary, the literature addresses numerous topics relevant to this study. The literature on DCWs and their attitudes towards DCWs is scant. The literature from

several discipline were included in order to better understand attitudes towards PWDs and other important issues related to this study.

CHAPTER III

STUDY METHODOLOGY

Participants

This study is about the attitudes of DCWs' towards PWDs in general, and the relations between DCWs' attitudes towards PWDs and the DCWs' motivation for choosing a career (direct care work, for example), number of years worked, level of education, and gender and race. The population is direct care workers in group homes, which are community-oriented residences that can be used as transitional residents or permanent homes (Wright, 1980), in the Lansing area. There were more group homes than other facilities where DCWs work, and thus there was the potential of getting enough direct care workers to participate in the study. Also, there was more diversity in terms of education and experience in the group homes than in the other facilities. A total sample size of 150 was possible based on the number of group homes and the willingness of some of the groups homes to participate.

The sample consisted of all races and both genders between the ages of 18 to 60, and both high school graduates and undergraduate students in the Lansing area. Because group homes are 7 day/24 hour programs, the sample consisted of many students and others who were also employed elsewhere, including other group homes. Some of the participants were single, other were married with children, and some had grand children. They help PWDs, predominantly those with severe disabilities, in many important areas 24 hours a day, seven days a week, assisting them in daily living skills, including grooming, basic math and readings, and cleaning, In addition, they clean the group homes so that they are livable, and they accompany PWDs to appointments,

including medical appointments. DCWs have the opportunity to do recreational activities with clients in the group home as well as in the community. Many of the DCWs have worked in group homes for over ten years and have created good relationship with their clients, even treating them like family members in terms of spending their own money for outing trips with clients and for other necessities.

Participants were invited to participate in the study (Appendix C), and were given information regarding the study (Appendix D). A hard copy of the Scale of Attitude towards Disabled Persons (SADP) (Appendix B) was used to collect the data for DCWs' attitudes towards PWDs. In addition, a hard copy of DCWs' demographic and other variables questionnaire (Appendix A) was used to collects additional data.

One hundred and twenty eight DCWs who were currently working in four group homes companies that serve individuals with developmental disabilities, brain injuries, and other disabilities participated in the study. Based on power calculations, I needed to get at least 96 participants to detect an effect size of 0.41 (with power of 95 and an alpha level of 5% for 2-tailed tests). The effect size was chosen based on budget, project timeline, and clinical significance. Effect sizes exceeding 0.30 are deemed clinically significant (Cole & Grizzle, 1966; Guyatt, 2002).

Instruments

The Scale of Attitude towards Disabled Persons (SADP) was used for data collection on DCWs' attitudes towards PWDs. In addition, a demographic data sheet was used to collect other relevant data. The demographic data sheet and the SADP scale were both developed by Antonak (1982).

Demographic data sheet. The demographic sheet contained information on participants' age, race, marital status, gender, level of education, recent occupations, knowing someone with a disability and in what capacity (sibling, for example), knowledge of the condition and life circumstances of PWDs, frequency of contact with PWDs, and intensity of contact with PWDs. These variables are included with the SAPD scale forms (see Appendix B). Additional questions based on the feedback my dissertation committee provided were included with the demographic questions formulated by Antonak. The questions added were numbers 5 to 11, regarding participants' years of experience working as a DCW; their reasons for choosing to be a DCW; the types of individuals with disabilities they work with; the work they perform in the group homes; their feelings about the clients they work with; their training needs; and their level of satisfaction working as a DCWs (Appendix A).

I chose SAPD by Antonak (1982) because it is multidimensional, as opposed to the Yuker et al. (1996) scale, which is not. Also, three items in the Yuker scale have been found to have negative total item correlations (Findler, Vilchinsky, and Werner, 2007). There are other very effective multidimensional scales; however, they are focused on measuring attitudes towards specific disabilities, whereas this study investigated attitudes towards disability in general. Also, the items in some of the other instruments are very numerous. This can be a problem, especially for participants who are impatient or for those with many life responsibilities. Another reason I chose this scale was that, after consulting with experts in the field, I thought it would be an appropriate instrument for my research questions. Moreover, I was also very familiar with the work the author had done with other experts in the area of measuring attitudes.

A further reason is that participants' attitudes towards PWDs (in the SAPD scale) have been generated from different groups (parents, students, human service professional) (Antonak, 1982).

According to Antonak (1982), the SAPD is made up of the general scale, which has 24 Likert-type items, and three subscales, namely Optimism/Human Rights (Factor 1), Behavioral Misconceptions (Factor 2), and Pessimism/Hopelessness (Factor 3), with 11, seven, and six Likert-type scale respectively. The 24 Likert-type items are designed to measure the general attitudes of people towards PWDs; they measure the extent to which people perceive individuals with disabilities as similar or not to those without disabilities (e.g., most disabled people feel sorry for themselves; disabled people are the same as anyone else; and there should not be special schools for disabled children) (see Appendix B). For the three subscales, the 11 items (Appendix E) of the first subscale measure optimism attitudes, the seven items (Appendix F) of the second subscale measure behavioral misconception attitudes, and the six items (Appendix G) of the third subscale measure pessimist attitudes. The Likert scale has three positive and three negative scales (+ 3 = I agree very much, + 2 = I agree pretty much, + 1=I agree a little, -1=I disagree a little, -2 = I disagree pretty much, -3 = I disagree very much) (Ary, Jacobs, & Razavieh, 1990), and individual score on the SAPD scale range from -3 to +3, -3 indicating a negative attitudes and +3 a positive attitude (Antonak 1982).

The total scores on the general SAPD scale range from 0 to 144; 0 indicates a negative attitude toward persons with a disability, and 144 a positive attitude toward persons with a disability (Antonak, 1982). For subscale 1, the scale range from -33 to

+33, -33 indicating a negative attitudes and +33 a positive attitude; for subscale 2, the scale range from -21 to +21, -21 indicating a negative attitudes and +21 a positive attitude; and for subscale 3, the scale range from -18 to +18, -18 indicating a negative attitudes and +18 a positive attitude. There are no reference points for classifications, such as moderate positive and high positive, but one can say that a person with a score of 130 has a more positive attitudes than a person with a score of 76 (R. Antonak, Personal Communication, April 27, 2010) in press). While there are no cutting points for positive and negative attitudes some would be comfortable saying that a person with a score of 96 has some positive attitudes (F. Chan, Personal Communication, April 28, 2010). Also, Antonak stated that half of the items were written so that a response of agreeing indicates a favorable attitude and half of the items were written so that a response of disagreeing also indicates a positive response.

Furthermore, Antonak (1982) made the point that the test is scored by reversing the sign of the response for those items worded negatively (items #1, 3, 4, 7, 8, 9, 10, 14, 17, 18, 19, and 22). Then the sum of the 24 responses is calculated for the general SADP scale; for the subscales, the sum of the 11 items are calculated for subscale 1, the sum of the seven items for subscale 2, and the sum of the six items for subscale 3. In order to avoid any negative scores; a constant of 72 is added to the sum of the general SADP score, 33 for subscale 1, 21 for subscale 2, and 18 for subscale 3 (Antonak).

Accordingly, the sum of all the items checked by a participant represents the person's total score, and higher scores on this instrument indicate more positive attitudes toward persons with disabilities (Palmer, Redinius, & Tervo, 2000) while

lower scores indicate more negative attitudes. This approach permits ranking individuals in terms of the favorableness of their attitudes towards a certain object. The scale has relatively high reliability (Palmer, Redinius, & Tervo). Antonak (1982) reported the development and psychometric analysis of this scale. The results of Antonak's research indicate that the instrument is reliable (Pearson correlation of .81) and internally consistent (alpha = .88) (Palmer, Redinius, & Tervo, 2000). For the subscale 1, 2, and 3 in particular, the reliability indices are .81, .77, and .82 respectively. The items within each subscale are similar, reliable, specific, and independent (Benham, 1988).

Procedure

I recruited participants by first contacting companies that run group homes and asking them to participate in my study. Four companies were willing to participate, and about twelve group homes run by the four different companies participated. After the approval of my proposal by my committee members and getting IRB clearance, employees in the group homes (with the permission of the group home management) were invited to participate in the project. In most of the group homes, I was invited during their monthly meetings. In three of the group homes, I had to make several visits because they were not having monthly meetings and it was difficult to get all, or most, of the employees together.

The participants were asked to read the invitation (see Appendix C) and the form that explained the study and informed them about the risks and benefits of participation and the confidentiality guaranteed (See Appendix D). They were told they had to read the documents before responding to the questionnaires so that they would

understand their rights and have knowledge about the study and other important issues. A couple of participants wanted to respond to the questionnaires without reading the documents, but I asked them to read first and then respond, and they did. Participants were informed that they had to be at least 18 years old, and that by completing and submitting their responses they were consenting to take part in the sturdy. The participants were also informed that participation in the study was voluntary and that they could withdraw at any time.

. To guarantee the confidentiality of the participants, I told the participants not to include their names or other information that might make it possible to identify them, and I shuffled the copies of responses I received from the individuals before placing them in a bag. Likewise, to guarantee confidentiality of the group homes, I told the participants not to include the name of their group home, and I used one bag to collect the answers from all the group homes. Also, I shuffled the copies of responses from each successive group home with the copies already collected from the other group homes. The participants' responses were locked in a bag and the computer where I recorded the responses had a password.

After they read the consent forms, I gave them opportunities to ask questions. A couple of the participants in one of the group homes had questions regarding questions 15 and 19. In another group a participants had questions about the keys in the survey. I explained the questions and the key issue and they did not have further questions.

There were a couple of participants who came while the others were already answering the questionnaires. I followed the same procedure as above, explaining the

study to them and giving them the invitation and consent form to read. After they finished answering their questionnaires, they handed me their answers. I shuffled the forms in front of them as they handed them to me.

There were about 10 participants who did not attend the meetings and therefore they could not participate. In one group home, the manager told me a couple of days later that only one of the three in his group home was willing to participate. I did not have him participate because of my limited resources to travel back and forth. One participant refused to participate even though he was present for the meeting. He handed me a blank form.

In the group homes where I made several trips because they were not having meetings, participants did the questionnaires individually. I followed the same procedures as I did with the group homes that had meetings (see above). Two employees refused to participate, and some were not available. In one of the group homes, two were not available and it was difficult for me to travel back and forth to ask them to participant. In the other group home, I knew about five or six employees and they did not participate. In addition, one group home owned by one of the group home companies did not participate because I could not reach the manager to give me permission to do my study there.

Administering the survey and receiving the minimum number of participants needed for the study took about three weeks. The participants had to respond to 38 questions that included demographic information, and to the SAPD questionnaire (see Appendix B). Since many of the potential participants had no college degree and perhaps, as a result, were less familiar with computer use, and since I wanted to be as

uniform as possible with the procedure of distributing the instruments and collecting the data, I decided to use hard copies rather than the internet.

In most of the group homes, I collected the surveys on the same day I distributed them. In two group homes, I had to leave the questionnaires with the participants, and I collected them later. The participants who handed me their responses got their lottery numbers that I put in a box, and then the secretary of the rehabilitation counseling program drew two numbers from the box. I informed the group homes of the lottery winner and made an appointment to give them their prizes, $ 100 for the first winner and $ 50 for the second winner.

I have worked in group homes as a direct care worker, and have performed the same duties as those done by the DCWs in this study. I currently work in two of the group homes participating in this study and know some of the DCWs. However, the participants I know did not participate in the study. My first-hand experience in group home settings provided me a unique preparation for observing DCWs as they carried out their duties. I had previously observed that there is a need for training DCWs regarding their attitudes towards PWDs, and I have learned from some studies (Benham, 1988; Brostrand, 2006; & Shur, Kruse, Blasi, and Blanck, 2009) that the general population has negative attitudes towards PWDs and that demographic variables do impact attitudes towards PWDs.

Design

This study was exploratory and descriptive in nature. It used a survey design and quantitative methods to investigate the attitudes of DCWs. Since this study did not utilize random sampling of participants and group homes, it would be premature to

generalize the findings to DCWs in Lansing or elsewhere. The rationale for sampling from group homes is that there are more group homes than other facilities where DCWs work, and thus there was the potential of getting enough direct care workers to participate in the study. Also, there is more diversity of education and experience in group homes than in other facilities, since group homes operate 24 hours 7 days a week, making it possible for disparate people to work there, including students and others who already have other employment.

This study used descriptive statistics, and general linear model because of a mixture of continuous and categorical variables. Because these variables (age, sex, gender, reason for choosing direct care work, and level of education) cannot be easily manipulated for experimental control purposes, using an experimental design was not appropriate; rather, a non-experimental design was more appropriate.

Data Analysis

To pursue this study as an exploratory investigation of the attitudes of direct care workers (in group homes) towards PWDs, the following research questions were addressed:

1) What are the attitudes of DCWs' towards PWDs?

2) Will DCWs' motivation for choosing direct care work (in group homes) impact their attitudes towards PWDs?

3) Will DCWs' amounts of experience in working with PWDs (in group homes) impact their attitudes towards PWDs?

4) Will DCWs' level of education impact their attitudes towards PWDs?

5) Will other demographic variables (age, gender, and race) of DCWs affect their attitudes towards PWDs?

For the first question, I did a summary analysis to get the overall frequency, mean, and standard deviation. I used a general linear model to investigate question two - whether DCWs' motivation for choosing direct care work (in group homes) impact their attitudes towards PWDs. For research question three - will DCWs' (in group homes) amounts of experience in working with PWDs impact their attitudes towards PWDs? - I also used a general linear model. I used the same analysis for research question four - Will DCWs' (in group homes) level of education impact their attitudes towards PWDs? Likewise, for question five - Will other demographic variables (age, gender, and race) of DCWs affect their attitudes towards PWDs? I also used a general linear model. In addition, I calculated eta to get the effect size and used a post hoc analysis to investigate whether the means of the variables that had effects on the attitudes of DCWs were significantly different from another. For variables that did not have effects on the attitudes of DCWs, I did a power analysis to see whether the variables powers were sufficient or the sample sizes needed were sufficient to detect the effects, if they existed.

The following chapter contains the results of the analysis that I used to answer each of the research questions.

CHAPTER IV

RESULTS

The purpose of this study was to examine the attitudes of DCWs towards PWDs. In addition to investigating the general attitudes of DCWs towards PWDs, this study also investigated the relation between DCWs' attitudes and their motivation for choosing a career (direct care work, for example), the number of years they have worked, their level of education, and other DCW variables (gender, race, age, type of work DCWs performed, whether feelings of DWCs changed, training need of DCWs, level of satisfaction of DCWs, level of knowledge of DCWs, frequency of contact of DCWs, and population DCWs worked with). I used descriptive statistics and a general linear model for DCWs' attitudes towards PWDs and for the relationship between these attitudes and DCW demographic variables, and I used SPSS version 15 to analyze my data. The following sections include participants' demographics and a summary of the analyses of (1) the attitudes of DCWs in general towards PWDs, (2) the effect of DCW demographics on their attitudes towards PWDs, (3) the attitudes of DCWs in relation to the SAPD subscales, and (4) the effects of DCW demographics on the SAPD subscales.

DCW demographic variables

Of the 108 questionnaires I handed out, I received 104 back. Six participants were dropped from the study because of missing data or responses that were difficult to understand. This represents a usable response rate of 90%. Of the four who refused to participate, two told me they did not want to participate and the other two handed back their responses with no answers. Information about the population was not available

because some of the group homes did not feel comfortable giving me information about their employees.

Ninety-eight participants' questionnaires were used in the study. Ages of the participants ranged from 19 to 65. The mean age was 33.74 (SD = 12.46). There were 25 males and 73 females. The majority of the participants identified themselves as African American/black (n=54), representing 55.1%. Thirty-five were whites (35.5%), four were Latino/Hispanic/Puerto Rican (4.1%), one was Asian/Asian American/Pacific Islander (1%), and four were other races (4.1%). For education, participants' responses were categorized into those with high school or GED (52%), those with two years of college (20.4%), those with four years of college (19.4), and those with more than four years of college (8.2%).

For their work experience, 14 (14.3%) had less than one year of experience, 40 (40.8%) had one to five years of experience, 22 (22.4%) had 5 to 10 years of experience, 11 (11.4%) had 10 to 15 years of experience, and 10 (10.2%) had more than 15 years of experience. There was one case of missing data. Regarding their reasons for choosing direct care work, 63 (63.3%) indicated intrinsic reasons, and 42 (42.9) had extrinsic reasons. There were two cases of missing data.

Regarding type of disability DCWs work with, 63 (64.2%) indicated that they worked with brain injuries (BI), 73 (74.7%) reported that they worked with developmental disabilities (DD), 82 (83.9%) indicated that they worked with mental retardation MR), and 72 (73.5) reported that they worked with psychiatric disability (PD).

For work DCWs performed in the homes, 85 (85.8%) did personal care (PC), 77 (77.6) did education (E) related activities (teaching clients to cook, clean the house, take the bus), 44 (44.9%) did house work (HW) (cooking, cleaning, etc.), and one (1%) did other tasks. There were two missing values.

Regarding whether DCWs' feelings changed over the years about the clients they work with, 37 (37.8%) said their feelings changed and 55 (56.1) said they did not change. For training needs or the areas they need training on, 57 (58.2%) indicated needs related to working directly with clients (communication, teaching clients hygiene skills), 45 (45.9%) had needs related to learning about disability, and 47 (48.2%) had needs related to helping individuals with disabilities (CPR, giving medication, and taking blood pressure).

For DCWs' level of satisfaction in doing direct care work, two (2%) rated they were not satisfied at all, 15 (15.3%) rated they were somewhat satisfied, 32 (34.7%) rated they were satisfied, and 48 (49%) rated they were extensively satisfied. For knowledge about the condition and life circumstances of persons with disability, respondents rated their answers from 1 (no knowledge) to 6 (extensive knowledge).

Some of the categories were only rated by a couple of participants, and therefore I decided to combine them so that there would be sufficient participants in order to carry out my analysis. I combined categories one (not very knowledgeable) and two (little knowledgeable); three (somewhat knowledgeable) and four (knowledgeable); and five (very knowledgeable) and six (extensively knowledgeable). So, instead of the six categories I had three, not very knowledgeable for those who chose either one (not very knowledgeable) or two (little knowledgeable),

knowledgeable for those who chose either three (somewhat knowledgeable) or four (knowledgeable), and very knowledgeable for those who chose either five (very knowledgeable) or six (extensively knowledgeable) . For this question, 6 (6.1%) rated one or two (not very knowledgeable), 34 (34.7%) three or four (knowledgeable), and 58 (59.2%) five or six (Very knowledgeable).

For the contact with PWDs question, that is, the frequency of DCWs' contact with PWDs, one (1%) had very little contact, four (4.1%) had little contact, two (2%) had some contact, 12 (12.2%) had frequent contact, 18 (18.4%) had very frequent contact, and 61 (62.1%) had extensive contact.

Table 1: Demographic and other Characteristics of the Sample

	N	%
Sex		
Male	25	25.05
Female	73	74.05
Race/Ethnicity		
Caucasian	35	35.05
African American	54	55.05
Latino/Hispanic/Puerto Rican	04	04.01
Oriental	00	00.00
Asians/Asian American	01	01.00
Others	04	04.01
Education		
High School/GRE	52	52.00
One/two years of College	20	20.04
Three/Four Years of College	19	19.04
More than Four Years of College	08	08.02
Worked Performed		
Personal Care (PC)	84	40.78
Educating (E)	77	37.38
House Work (HW)	44	21.36
Other	01	01.00
Type of disability		
Brain Injury (BI)	63	21.00
Developmental Disability (DD)	83	27.67
Mental Retardation (MR)	82	27.33
Psychiatric Disability (PD)	72	24.00
Training Need		
Worked Directly with client (DWC)	57	38.26
Learning about Disability (LAD)	45	30.20
Helping Individual with Disability (HIWD)	47	31.54

Table 1 (Cont'd): Demographic and other Characteristics of the Sample

	N	%
Feeling Change?		
Yes	37	40.22
No	55	59.78
Reason for Choosing direct care work		
Intrinsic	63	60.00
Extrinsic	42	40.00
Satisfaction Level		
Not Satisfied at all	02	02.00
Somewhat Satisfied	15	15.03
Satisfied	32	34.07
Extensively Satisfied	48	49.00
Knowledge about Disability		
Not Very Knowledgeable	01	10.02
Not knowledgeable	05	05.10
Somewhat Knowledgeable	11	11.22
Knowledgeable	27	27.55
Very Knowledgeable	32	32.65
Extensively Knowledgeable	22	22.45
Contact with PWDs		
Very Little Contact	01	01.00
Little Contact	04	04.08
Some Contact	02	02.00
Frequent Contact	12	12.24
Very Frequent Contact	18	18.37
Extensive Contact	61	62.24

The following sections presents the findings of DCWs' general attitudes, based on the SAPD scale (questions one to 24 on the SAPD scale), and their specific attitudes, based on the SAPDs' three subscales, which are human right (questions one

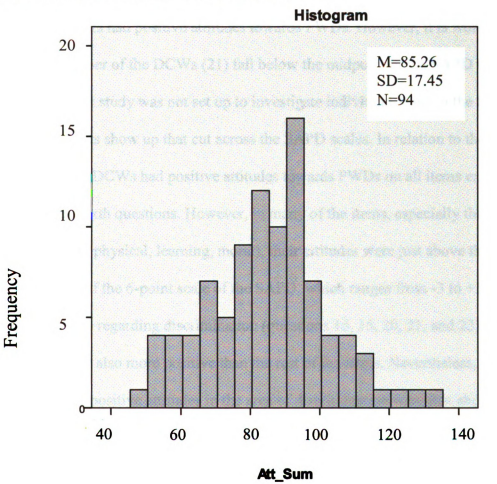
to 11 on the SAPD scale), behavior misconception (questions 12 to 18 on the SAPD scale), and pessimism (questions 19 to 24 on the SAPD scale).

1.Analyses of DCWs' attitudes in general towards PWDs

This research question was: What are the attitudes of DCWs towards PWDs?

Mean Analysis. I used descriptive statistics (M=85.26, SD=17.45) to answer this question, based on the attitude survey responses (SADP).

Figure 1: Distribution of responses on the SAPD scale



The data shows that the mean of DCWs' attitudes towards PWDs falls above the mid point (72) of the SAPD subscale. The scores on the SAPD scale range from 0 to 144, with 0 indicating a negative attitude toward persons with a disability, and 144 a positive attitude toward persons with a disability (Antonak, 1982). The DCWs' attitudes towards PWDs ranged from 48 to 132, with a mean of 85.25, indicating that the DCWs generally had moderately positive attitudes towards PWDs. Figure 1 shows the distribution of the attitude scores. Twenty three participants fall below the 25 percentile, 47 below the 50 percentile, and 71 below the 95 percentile. On average the direct care workers had positive attitudes towards PWDs. However, it is worth noting that a small number of the DCWs (21) fall below the midpoint of the SAPD scale.

While this study was not set up to investigate individual items in the SAPD scale, some results show up that cut across the SAPD scales. In relation to the individual items, DCWs had positive attitudes towards PWDs on all items except for the second and sixth questions. However, in many of the items, especially those that deal with ability (physical, learning, moral), their attitudes were just above the midpoint (zero) of the 6-point scale of the SAPD, which ranges from -3 to +3. DCWs attitudes on items regarding discrimination (questions 15, 16, 20, 21, and 23) were not only positive, but also more positive than the rest of the items. Nevertheless, it is worth noting that these positive attitudes in the area of discrimination were just above +1, but below +2, on the 6-point scale of the SAPD. Table 3 summarizes these results.

Also, While DCWs' attitudes were very moderately positive about the general abilities (physical, moral, work) of PWDs, in one physical ability item (2), their attitude was negative. While DCWs' attitudes were not negative in relation to learning

(18), a very crucial area for human beings, including PWDs, they were low moderate positive.

Table 2: Individual scores of DCWs towards PWDs

	M	SD
1. Children who are disabled should not be provided with a free public education.	2.14	1.80
2.Persons who are disabled are not more accident prone than are other people.	-1.07	1.95
3.Individuals who are disabled are not capable of making moral decisions.	-1.47	1.95
4.Persons who are disabled should be prevented from having children.	1.27	1.82
5.Persons who are disabled should be allowed to live where and how they choose.	.122	2.23
6.Adequate housing for persons who are disabled is neither too expensive nor too difficult to build.	-.20	2.02
7.Rehabilitation programs for persons who are disabled are too expensive to operate.	.82	1.92
8.Persons who are disabled are in many ways like children.	-.50	2.13
9.Persons who are disabled need only the proper environment and opportunity to develop and express criminal tendencies.	.83	2.11
10.Adults who are disabled should be involuntarily committed to an institution following arrest.	1.06	1.94
11.Most persons who are disabled are willing to work.	.22	1.98
12.Individuals who are disabled are able to adjust to life outside an institution.	.42	2.13
13.Adults who are disabled should not be prohibited from obtaining a driver's license.	.22	2.02
14.Persons who are disabled should live with others who are similarly disabled.	.10	2.24

Table 2 (Cont'd): Individual scores of DCWs towards PWDs

	M	SD
15.Zoning ordinances should not discriminate against persons who are disabled by prohibiting group homes in residential districts.	1.39	1.95
16.The opportunity for gainful employment should be provided to persons who are disabled.	1.62	1.62
17.Children who are disabled in regular classrooms have an adverse effect on other children.	.71	2.10
18.Simple repetitive work is appropriate for persons who are disabled.	-.55	1.88
19.Persons who are disabled show a deviant personality profile.	-.03	2.00
20.Equal employment opportunities should be available to individuals who are disabled	1.58	1.80
21.Laws to prevent employers from discriminating against person who are disabled should be passed.	1.76	1.74
22.Persons who are disabled engage in bizarre and deviant sexual activity.	.77	2.19
23.Workers who are disabled should receive at least the minimum wage established for their jobs.	1.14	2.24
24.Individuals who are disabled can be expected to fit into our competitive society.	.56	2.13

2. DCWs' demographics and other variables and effect on their attitudes

Research question 2a

Research question 2a was: Do DCWs' motivation for choosing direct care work impact their attitudes towards PWDs?

To evaluate whether motivation for choosing direct care work affects the attitudes of DWCs, their motivational levels were categorized into three categories:

intrinsic (51.1%), extrinsic (33.7%), and both (9.2%). There were two cases of missing data. Participants wrote their motivations for choosing direct care work, and they ranged from a need to get employment to wanting to help others. Based on their motivations, I put them under one of the three categories mentioned above.

For analyzing whether DCWs' motivation for choosing direct care work had an effect on their attitudes towards PWDs, I used a general linear model. Both the dependent variable, attitude towards PWDs, and the independent variable, DCWs' motivation for choosing direct care work, were treated as categorical variables. The data shows that motivation for choosing direct care work was not significant ($F(2, 89)=0.935$, $p > 0.05$), indicating that DCWs' motivation for choosing direct care work had no effect on their attitudes towards PWDs.

Research Question 2b

Research question 2b was: Will DCWs' amounts of experience in working with PWDs impact their attitudes towards PWDs?

For the question about years of experience as a direct care worker, responses were categorized into less than one year, one to five years, five to 10 years, 5 to 15 years, and above 15 years. Fourteen (14.3%) had less than one year of experience, 40 (40.8%) had one to five years of experience, 22 (22.4%) had five to 10 years of experience, 11 (11.4%) had 10 to 15 years of experience, and 10 (10.2%) had more than 15 years of experience. There was one case of missing data.

For analyzing whether DCWs' amounts of experience in working with PWDs (in group homes) had an effect on their attitudes towards PWDs, I used a general linear model. Both the dependent variable, attitude towards PWDs, and the independent

variable, DCWs' amounts of experience in working with PWDs, were treated as categorical variables. The data shows that DCWs' amounts of experience in working with PWDs was not significant ($F(4, 88)=0.256$, $p > 0.05$), indicating that DCWs' amounts of experience in working with PWDs had no effect on attitudes towards PWDs.

Research Question 2c

Research question 2c was: Will DCWs' level of education impact their attitudes towards PWDs?

For level of education, participants' responses were categorized into those with high school or GED (52%), those with two years of college (20.4%), those with four years of college 19.4(%), and those with more than four years of college (8.2%).

For analyzing whether DCWs' level of education had an effect on their attitudes towards PWDs, I used a general linear model. Both the dependent variable, attitudes towards PWDs, and the independent variable, DCWs' level of education, were treated as categorical variables. The data shows that DCWs' level of education was not significant ($F(3, 90)= 2.345$, $p > 0.05$), indicating that DCWs' level of education had no effect on attitudes towards PWDs.

Whether other demographic variables had effects on the attitudes of DCWs were also calculated. Prominent variables based on my original framework did not have effect on the attitudes of DCWs, while some non prominent ones did have effects. Training needs, contact with PWDs, knowledge about PWDs, age of DCWs, race of direct care workers, work performed by DCWs, level of satisfaction of DCWs, gender of DCWs, educational level of DCWs, years of experience of DCWs, DCWs'

motivation for choosing direct care work, and whether feelings of DCWs have changed or not did not have effects. Training needs, contact with PWDs, and knowledge about PWDs had effects on the attitudes of DCWs towards PWDs based on the SADP scale, and training needs, knowledge, contact, and population DCWs worked with had effects on DCWs attitudes based on the SADP subscales. The following section discusses the results that were significant.

Research Question for 2d

This research question was: Do the training needs of DCWs affect their attitudes towards PWDs?

In regards to the question about training needs, participants wrote what their training needs were; they ranged from need to learn about disability or PWDs to help PWDs (learning about first aid or how to give mediation in order to help PWDs with these skills) to directly working with PWDs (how to help clients in hygiene skills or doing activities with clients). So participants who had needs that focus on learning about disability were grouped under "needs related to LAD"; those with needs related to learning skills in order to help PWDs were grouped under needs relating to HIWD; and those who have needs related to working directly with them were grouped under "needs related to DWC", and those with combinations were grouped accordingly.

In sum, respondents' answers were categorized into work need related to (a) working directly with clients ((communication, teaching clients hygiene skills) (DWC) 35 (35.7), (b) learning about disability and disability issues (LAD) (7 (7.1%), (c) helping individuals with disabilities (CPR, giving medications, taking blood pressure)

(HIWD) 9 (9.2), and (d) none. However, there were other categories since some DCWs had more than one need. The other categories were (a) DWC, LAD, and HIWD, 14 (14.3%), (b) DWC and LAD, 4 (4.1%), (c) DWC and HIWD, 4 (4.3%), (d) LAD and HIWD, 20 (20.4%). There were five missing values.

For analyzing whether the training needs of DCWs had an effect on their attitudes towards PWDs, I used a general linear model. Both the dependent variable, attitude towards PWDs, and the independent variable, training needs of DCWs, were treated as categorical variables. The data shows that DCWs' training needs was significant ($F(6, 93)= 4.974$, $p < 0.05$), indicating that training needs of DCWs do have an effect on attitudes towards PWDs.

The magnitude in differences in mean scores between the groups was large, as indicated by the effect size (eta squared=0.264). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly:

a) The mean for DCWs whose training needs are related to directly working with clients (DWC) (M=86.43, SD=14.81) was significantly different from the mean of DCWs whose training needs are related to a combination of working directly with clients, to learning about disability, and to helping individuals with disability (HIWD) (M=66.21, SD=16.94). (b) the mean for DCWs whose training needs are related to LAD (M=96.33, SD=11.41) was significantly different from the mean of DCWs whose training needs are related to a combination of DWC, LAD, and HIWD (M=66.21, SD=16.94); (c) the mean for DCWs whose training needs are related to HIWD (M=89.44, SD=14.07) was significantly different from the mean of DCWs whose training needs are related to a combination of DWC, LAD, and HIWD (M=66.21,

SD=16.94); (d) the mean of DCWs whose training needs are related to a combination of DWC, LAD, and HIWD (M=66.21, SD=16.94) was significantly different from the mean of all of the groups, except for the mean of those whose training needs related to DWC and HIWD; (e) the mean for DCWs whose training needs are related to a combination of DWC and LAD (M=105.33, SD=23.29) was significantly different from the mean of DCWs whose training needs are related to a combination of DWC, LAD, and HIWD (M=66.21, SD=16.94); (f) the mean of DCWs whose training needs are related to a combination of DWC and HIWD (M=85.50, SD=13.13) was not significantly different from the mean of any of the other groups; and (g) the mean of DCWs who did not have training needs (M=88.74, SD=17.83) was significantly different from the mean of DCWs whose training are related to a combination of DWC, LAD, and HIWD (M=66.21, SD=16.94).

Table 3 summarizes the means of the groups for training needs related to (1) working directly with clients (DWC), (2) learning about disability (LAD), (3) helping individuals with disabilities (HIWD), (4) DWC, LAD, and HIWD, (5) DWC and LAD, (6) DWC and HIWD, (7) LAD and HIWD, and 8) no needs (NN).

Table 3: Means for Training Needs Categories

Training Need	N	Mean	Std. Deviation
1. DWC	35	86.43	14.81
2. LAD	6	96.33	11.41
3. HIWD	9	89.44	14.07
4. DWC, LAD, & HIWD	14	66.21	16.94
5. DWC & LAD	3	105.33	23.29
6. DWC & HIWD	4	85.50	13.13
7. LAD & HIWD	0		
8. NN	19	88.74	17.83

Research Question 2.e

The research question was: Does the DCWs' level of contact with PWDs affect their attitudes towards PWDs?

For frequency of contact, respondents' answers were categorized into (a) very little contact, (b) little contact, (c) some contact, (d) frequent contact, (e) very frequent contact, and (f) extensive contact. One (1%) rated very little contact, four (4.1%) little contact, two (2%) some contact, 12 (12.2) frequent contact, 18 (18.4%) very frequent contact, and 61 (61.3%) extensive contact.

For analyzing whether DCWs' level of contact with PWDs had an effect on their attitudes towards PWDs, I used a general linear model. The dependent variable, attitudes towards PWDs, and the independent variable, DCWs' level of contact with PWDs, were treated as categorical variables. The data shows that DCWs' level of

contact with PWDs was significant ($F(5, 94)= 2.280$, $p < 0.05$), indicating that DCWs' level of contact with PWDs does have an effect on attitudes towards PWDs.

The magnitude in difference in mean score between the groups was large as indicated by the effect size (eta squared=0.64). Those with very little contact (VLC) only had one response and as a result could not be analyzed. Post-hoc comparisons using the Bonferroni test showed the mean scores differed from group to group significantly: (a) The mean for those with little contact with PWDs (LC-PWDs) (M=74.50, SD=15.20) was not significantly different from any of the other groups; the mean for those with some contact with PWDs (SC-PWDs) (M=73, SD=14.14) was not significantly different from the other groups; (b) the mean for those with frequent contact with PWDs (FC-PWDs) (M=90.67, SD=16.16) was significantly different from the mean for those with very frequent contact with PWDs (VFC-PWDs) (76.17, SD=11.18); (c) the mean for those with VFC-PWDs (M=76.17, SD=11.18) was significantly different from the mean for those with FC-PWDs (M=90.67, SD=16.16) and those with extensive contact (EC-PWDs) (M=87.90 SD=18.50); and (d) the mean for those with EC-PWDs (M=87.90, SD=18.50) was significant different from the mean of group those with VFC-PWDs (76.17, SD=11.18).

Tables 4 summarizes the means of the groups: (1) very little contact, (2) little contact, (3) some contact, (4) frequent contact, (5) very frequent contact, and (6) extensive contact.

Table 4: Means for Contact with PWDs Categories

Contact	N	Mean	Std. Deviation
1. Very Little contact	1	101.00	
2. Little contact	4	74.50	15.20
3. Some Contact	2	73.00	14.14
4. Frequent Contact	12	90.67	16.16
5. Very Frequent Contact	18	76.17	11.18
6. Extensive Contact	57	87.90	18.50

Research Question 2f

The research question was: Do DCWs' levels of knowledge about the disabilities of DCWs affect their attitudes towards PWDs?

For knowledge about disability, respondents rated their answers from 1 (no knowledge) to 6 (extensive knowledge). As I stated above, some of the answers in the question about knowledge about disability were only rated by a couple of participants, and therefore I decided to combine the groups so that there would be sufficient participants in the groups in order to do my analysis. I combined the two lowest levels of knowledge and referred to them as not very knowledgeable (NVK). I combined the next two lowest levels of knowledge and called them knowledgeable (K). Also, I combined the two highest levels of knowledgeable and referred to them as very knowledgeable (VK). For this question, (a) six (6.1%) rated the two lowest levels of knowledge, NVK, (b) 34 (34.7%) the next two lowest levels of knowledgeable, K, and (c) 58 (59.2%) the two highest levels of knowledgeable, VK.

For analyzing whether DCWs' level knowledge about disability had an effect on their attitudes towards PWDs, I used a general linear model. The dependent variable, attitudes towards PWDs, and the independent variable, DCWs' level knowledge about disability, were treated as categorical variables. The data shows that DCWs' level of knowledge about disability was significant ($F(2, 94)= 7.903$, $p < 0.05$), indicating that DCWs' level of knowledge about the disabilities of PWDs does have an effect on attitudes towards PWDs.

The magnitude of difference in mean score between the groups was medium to large, as indicated by the effect size (eta squared=0.129). Post-hoc comparisons using the Bonferroni test showed the mean scores differed from group to group significantly: The mean for those who are very knowledgeable (M=91, SD=15.62) was significantly different from the mean of those who are knowledgeable (M=77.59, SD=18.26). The remaining variables listed on page 17 were not significant.

3. DCWs' specific attitudes towards PWDs in relation to SAPD's subscale

The previous section presents the results on the attitudes of DCWs towards PWDs, which are generally positive; some DCWs' demographic variables did influence their attitudes towards PWDs. It is also worth investigating DCWs' specific attitudes towards PWDs. The SAPD, which is a multidimensional scale, provided the possibility to investigate specific attitudes - optimism/human rights (subscale 1), behavioral misconceptions (subscale 2, and pessimism/hopelessness (subscale 3). Further, it is worth investigating whether DCWs' demographic variables had effects on these subscales of the SAPD scale. The following section will discuss the specific

attitude (in relation to the subscales) of DCWs' attitudes towards PWDs and the effects of DCWs' demographics on these specific attitudes towards PWDs.

Since the SAPD is a multidimensional scale, descriptive statistics were also used to investigate DCWs'. attitudes towards PWDs in terms of the three subscales of the SAPD: human rights (factor 1), behavioral misconceptions (Factor 2), and pessimism (Factor 3). I also investigated whether demographic variables had effects on these. The following section will discuss the attitudes of DCWs in general towards PWDs and the effect of DCWs demographics on their more specific attitudes towards PWDs

Research Question 3a

The research question was: What are the attitudes of DCWs towards PWDs in relation to optimism/human rights (subscale 1)?

To evaluate the attitudes of DCWs towards PWDs in relation to human rights, the mean for subscale 1 was calculated (M=36.53, SD=7.80).

The data shows that the mean falls above the mid point (33). The scores in the SAPD scale ranged from 0 to 66, with 0 indicating a negative attitude toward persons with a disability, and 66 a positive attitude towards PWDs in relation to human Rights (Antonak, 1982). The DCWs' attitudes towards PWDs range from 16 to 60, with a mean of 36.53; this indicates that the DCWs generally had moderately positive attitudes towards PWDs in relation to optimism/human rights.

Research Question 3b

The research question was: What are the attitudes of DCWs towards PWDs in relation to behavioral misconceptions (Factor 2)?

To evaluate the attitudes of DCWs towards PWDs in relation to behavioral misconceptions, the mean for this scale was calculated (M=24.89, SD=6.93.

The data shows that the mean falls above the mid point (21). Scores in the SAPD scale range from 0 to 42, with 0 indicating a negative attitude toward persons with a disability, and 42 a positive attitude towards PWDs in relation to optimism/human rights (Antonak, 1982). The DCWs' attitudes towards PWDs ranged from 10 to 42, with a mean of 24.89, indicating that the DCWs generally had moderately positive attitudes towards PWDs in relation to behavioral misconceptions.

Research Question 3 c

The research question was: What are the attitudes of DCWs towards PWDs in relation to pessimism/hopelessness (Factor 3)?

To evaluate the attitudes of DCWs towards PWDs in relation to pessimism/hopelessness, the mean for this scale was calculated (M=23.78, SD=6.62).

The data shows that the mean falls above the mid point (18). The scores in the SAPD scale range from 0 to 36, with 0 indicating a negative attitude toward persons with a disability, and 36 a positive attitude towards PWDs in relation to optimism/human rights (Antonak, 1982). The DCWs attitudes towards PWDs ranged from 6 to 36, with a mean of 23.78, which is above the midpoint (18); this indicates a positive attitudes, but not the highest positive attitudes in relation to pessimism/hopelessness.

4. DCW demographics and their effects on DCWs' specific attitudes in the SAPD subscale

Whether demographic variables have effects on the attitudes of DCWs towards PWDs in relation to human rights, behavioral misconception, and pessimism (the three subscales of the SAPD) was also calculated. The following section presents each subscale separately.

Research question 4a1

Did the demographic variables of DCWs in relation to optimism/human rights (the SAPD first subscale) have an effect on their attitudes towards PWDs?

For DCWs' attitudes towards PWDs in relation to optimism/human rights (Factor 1), training need and knowledge were the only variables that were significantly based on the general model analysis, indicating that they affected DCWs' attitudes towards PWDs in relation to optimism.

Training Need. The results show that DCWs' training need in relation to subscale 1 is significant ($F=4.30$, $P < 0.05$).

The magnitude in differences in mean scores between the groups was large, as indicated by the effect size (eta squared=0.235). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: (a) The mean for DCWs whose training needs relate to direct working with clients (DWC) (M=37.66, SD=7.24) was significantly different from the mean for DCWs whose training needs relate to a combination of directly working with clients (DWC), learning about disability (LAD), and helping individuals with disability (HIWD) (M=28.79, SD=5.91); (b) the mean for DCWs whose training needs relate to LAD (38.43) was not significantly different from the mean of any of the other groups; (c) the mean for those whose training needs relate to a combination of DWC, LAD, and HIWD (28.79) was

significantly different from the mean for those whose training needs relate to DWC, (37.66), HIWD (39.11), and those with no training needs (37.89); (d) the mean for those whose training needs relate to a combination of DWC and LAD 5 (45.33) was not significantly different from the mean of any of the other groups; and (e) the mean for those whose training needs relate to a combination of DWCs and HIWD (33.25) was not significantly different from the mean of any of the other groups.

Tables 8 summarizes the means for the groups: (1) DWC, (2) LAD, (3) HIWD, (4) DWC, LAD, & HIWD, (5), DWI & LAD, (6) DWC & HIWD, (7) LAD & HIWD, and (8) NN.

Table 5: Means for Training Needs Categories in Subscale 1

Training Need	N	Mean	Std. Deviation
1. DWC	35	37.66	7.24
2. LAD	7	38.43	3.51
3. HIWD	9	39.11	4.66
4. DWC, LAD, & HIWD	14	28.79	5.91
5. DWC & LAD	3	45.33	13.05
6. DWC & HIWD	4	33.25	12.69
7. LAD & HIWD			
8. NN	19	37.89	6.90

Knowledge about PWDs. The results show that DCWs' level of knowledge in relation to subscale 1 is significant ($F=3.36$, $P < 0.05$).

The magnitude of differences in mean scores between the groups was small, as indicated by the effect size (eta squared=0.048). Post-hoc comparisons using Bonferroni test did not show any mean differences between and among groups.

The mean for the different categories are: (1) Not very knowledgeable (M =35.17; SD =5.98), (2) Knowledgeable (M =34.00; SD = 7.75), and (3) very knowledgeable (38.24; SD =7.66).

Research Question 4 b

The research question was: Did the demographic variables of DCWs towards PWDs in relation to behavioral misconception (the SAPD second subscale) towards PWDs have an effect on their attitudes?

For behavioral misconception, the p values for population, knowledge, and contact were significant.

Population DWC worked with. The results showed that the population DCWs' worked with, in relation to subscale 2, was significant ($F=2.00$, $P < 0.05$).

In response to the question about the type of disability employees work with, responses were categorized into (a) work with brain injuries (BI), accounting for four (4.1%) of the participants; (b) developmental disabilities (DD), accounting for four (4.1%); (c) mental retardation MR), representing four (4.1%); (d) psychiatric disability (PD), accounting for nine (9.2%); and others, accounting for zero (0%). However, because many worked with more than one category, there were other categories. The other groups were (a) BI, DD, MR, and PD 28 (28.6); (b) MR and PD 10(510.2%); (c) BI, DD, and MR six (6.1%); (d) BI, DD, and MR 10 (10.2%); (e) BI and DD 12 (12.5); (f) BI, MR, and PD four (4.1%); (g) BI and PD five 5 (5.1%); (h) DD, MR, and PD 10 (10.2%); and (I) DD and MR two (2%).

The magnitude in differences in mean scores between the groups was medium to large, as indicated by the effect size (eta squared=0.103). Post-hoc comparisons using Bonferroni test did not show any mean differences between and among groups.

Table 10 summarizes the means for the groups for population in subscale 2 are below. They included: (1) Brain Injury (BI), (2) Developmental Disability (DD), (3) Mental Retardation (MR), (4) Psychiatric Disability (PD), (5)Other (O), (6) BI, DD,

MR, and PD, (7) BI, MR, and PD, (8) BI and DD, (9) DD, MR, and PD, (10) DD and MR, (11) DD and PD, (12) MR and PD; (13) BI, DD, and MR, (14).

Table 6: Means for Population DCWs Work with Categories in Subscale 2

Population	N	Mean	Std. Deviation
1.BI	4	20.75	7.63
2. DD	4	27.50	2.38
3. MR	4	31.50	8.23
4. PD	9	27.11	6.27
5. O		0.0	0.0
6. BI, DD, MR, & PD	28	24.61	7.31
7. BI, MR, and PD	10	27.10	5.82
8. BI and DD	6	25.50	6.28
9. DD, MR, and PD	10	22.60	5.44
10. DD and MR	11	22.73	6.93
11. DD and PD	4	23.25	6.13
12. MR and PD	5	19.00	5.79
13. BI, DD, and MR	2	37.00	2.83

Knowledge. The results show that DCWs' level of knowledge in relation to subscale 2 is significant ($F=4.44$, $P < 0.05$).

The magnitude in differences in mean scores between the groups was medium, as indicated by the effect size (eta squared=0.067). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: The mean for those who are very knowledgeable (26.58) is significantly different from the means of those who are knowledgeable (36.00).

The mean for the different groups are (1) knowledgeable (1) not very knowledgeable (M =22.00; SD =4.10), (2) knowledgeable (M = 22.56; SD =6.74), and (3) very knowledgeable (M =26.58; SD = 6.85).

Contact. The results show that DCWs' level of contact in relation to subscale 2 is significant (F=2.88, P > 0.05).

The magnitude in differences in mean scores between the groups was medium, as indicated by the effect size (eta squared=0.089). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: (a) The mean for those with some contact with PWDs (SCPWDs) (16.50) was significantly different from the mean of those with extensive contact (ECPWDs) (26.17); (b) the mean for those with very frequent contact with PWDs (VFCPWD) (35.00) was significantly different from the mean of the group with extensive contact with PWDs (ECPWDs) (26.17).

Tables 12 summarizes the means of the groups: (1) very little contact, (2) little contact, (3) some contact, (4) frequent contact, (5) very frequent contact, and (6) extensive contact.

Table 7: Mean for Contact Categories in Subscale 2

Contact	N	Mean	Std. Deviation
1. Very Little Contact	1	34.00	1:00
2. Little Contact	4	19.75	2.87
3. Some Contact	2	16.50	7.78
4. Frequent Contact	12	25.75	7.39
5. very frequent contact	18	21.61	6.29
6. Extensive Contact	60	26.17	6.66

Research Question 4 c

The research question was: Did the demographic variables of DCWs in relation pessimism (the SAPD third subscale) have an effect on their attitudes towards PWDs?

For pessimism, the p values of training need, knowledge, and contact were significant.

Training Need. The result shows that DCWs' training need in relation to subscale three is significant ($F=4.92$, $P < 0.05$).

The magnitude in differences in mean scores between the groups was large, as indicated by the effect size (eta squared=0.204). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: (a) The mean for those whose training needs related to directly working with clients (DWC) (23.83) was significantly different from the mean for those whose training needs related to a combination of working with DWC, learning about disability (LAD),

and helping individuals with disability (HIWD) (17.14); (b) the mean for those whose training needs related to LAD (28.26) was significantly different from the mean for those whose work needs related to a combination of DWC, LAD, and HIWD (17.14); (c) the mean for those whose training needs related to HIWD (24.78) was not significantly different from the mean of any of the other groups; (e) the mean for those whose training needs related to a combination of DWC and LAD (32.00) was significantly different from the mean for those whose training needs related to combination of DWC, LAD, and HIWD (17.14), and those who had no training needs (36.00); and (f) The means of those with no training needs was significantly different from the mean of those whose training needs related to a combination of DWC, and LAD and HIWD.

Tables 13 summarizes the means for the groups: (1) DWC, (2) LAD, (3) HIWD, (4) DWC, LAD, & HIWD, (5), DWI & LAD, (6) DWC & HIWD, (7) LAD & HIWD, and (8) NN.

Table 8: Means for Training Needs Categories in subscale 3

Training Need	N	Mean	Std. Deviation
1. DWC	35	23.83	5.60
2. LAD	7	28.26	4.99
3. HIWD	9	24.78	4.32
4. DWC, LAD, & HIWD	14	17.14	7.65
5. DWC & LAD	4	32.00	2.94
6. DWC & HIWD	4	26.00	7.62
7. LAD & HIWD			
8. NN	20	24.75	5.83

Knowledge. The results show that DCWs' training need in relation to subscale three is significant ($F=7.56$, $P < 0.05$).

The magnitude in differences in mean scores between the groups was medium to large, as indicated by the effect size (eta squared=0.119). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: The mean for those who are knowledgeable (21.02) was significantly different from the mean of those who are very knowledgeable (25.79).

The means for the knowledge category are (1) not very knowledgeable (2.40), (2) Knowledgeable (21.02), and (3) very knowledge (25.79).

Contact. The results show that DCWs' training need in relation to subscale 1 is significant ($F=3.66$, $P < 0.05$).

The magnitude in differences in mean scores between the groups was medium to large, as indicated by the effect size (eta squared =0.121). Post-hoc comparisons using Bonferroni test showed the mean scores differed from group to group significantly: (a) The mean for those with little contact with PWDs (18.25) was significantly different from the mean for those with frequent contact with PWDs (26.75) and for those with extensive contact with PWds (24.89); (b) the mean for those with frequent contact with PWDs (26.75) was significantly different from the mean for those with little contact (18.25) and for those with very frequent contact (19.56); (c) and the mean for those with very frequent contact (19.56) was significantly different from the mean for those with frequent contact (26.75) and for those with extensive contact (24.89).

Tables 15 summarizes the means of the groups: (1) very little contact, (2) little contact, (3) some contact, (4) frequent contact, (5) very frequent contact, and (6) extensive contact.

Table 9: Mean for Contact in Subscale 3

Mean for Contact	N	Mean	Std. Deviation
1. Very Little contact	1	29.00	.
2. Little contact	4	18.25	6.02
3. Some Contact	2	18.50	2.12
4. Frequent Contact	12	26.75	5.80
5. Very Frequent Contact	18	19.56	6.04
6. Extreme Contact	61	24.89	6.39

CHAPTER V

DISCUSSION

The purpose of this study was to examine the attitudes of DCWs towards PWDs. In addition to investigating the general attitudes of DCWs towards PWDs, this study also investigated the relation between DCWs' attitudes and their motivation for choosing a career (direct care work, for example), the number of years they have worked, their level of education, and other DCW variables (gender, race, age, type of work DCWs performed, whether feelings of DWCs changed, training need of DCWs, level of satisfaction of DCWs, level of knowledge of DCWs, frequency of contact of DCWs, and population DCWs worked with). Some of the findings were significant, while others were not. Because DCWs play paramount role in the lives of PWDs, helping them in basic but crucial living activities, there are important implications in this study. The following section summarizes the findings and presents the implications, including directions for future research, limitations of the study and the study's conclusions.

In order to address this study's research questions, a quantitative study was conducted using the "Scale of Attitude towards Persons with Disability" (SAPD) and a demographic survey. Findings show expected and unexpected results, positive and negative attitudes towards PWDs, and significant and non significant differences between variables and variable categories.

The general attitudes of DCWs (M=85.26) towards PWDs overall were moderately positive. DCWs' attitudes towards PWDs in relation to the SAPD subscales were moderately positive for the three subscales, that is, attitudes related to human rights (subscale 1) (M=36.53), behavioral misconceptions (subscale 2) (M=24.89), and

pessimism (subscale 3) (M=23.78). While Antonak (Personal Communication, April 27, 2010) stated that the use of "moderate" or "high" positive is not appropriate to describe the attitudes towards PWD based on the SADP scale, Chan (Personal Communication, April 28, 2010) mentioned that he would feel comfortable in attributing some positive attitudes for a person with a score of 96 on the general SAPD scale; this is equivalent to 44 for subscale 1, 28 for subscale 2, and 24 for subscale 3. Since the scores of DCWs fall above the midpoints for all of the scale, but just shy of the point that Chan feels comfortable for attributing "some positive" attitudes, it would be reasonable to say that DCWs' score were moderately or some what positive in this sense.

Variables that impacted their attitudes in relation to these subscales were training needs and knowledge about disability for subscale one; population that DCWs worked with, knowledge about disability, and contact with PWDs for subscale two; and training needs, knowledge about disability, and contact with PWDs for subscale three.

In relation to the individual items in the SAPD scale, DCWs' attitudes were negative on some of the items – two (Persons who are disabled are not more accident prone than are other people) and six (Adequate housing for persons who are disabled is neither too expensive nor too difficult to build). The demographic variables that had impact on their general attitudes towards PWDs were training needs, knowledge about disability, and contact with PWDs.

Attitudes towards PWDs based on SAPD and its subscales

Research regarding attitudes towards PWDs has been mixed. While studies have shown that the general population has negative attitudes towards PWDs, some have found positive attitudes among specific professional groups such as rehabilitation

counselors, employers, occupational therapists, and other health care workers (Byrd, Byrd, & Emener, 1977; Huitt & Elston, 1991), and others have found negative attitudes (Benham, 1988; Farina & Felner, 1973; Kaplan & Thomas, 1981 Parkinson, 2006; Spengler, Strohmer, & Prout, 1990). On average DCWs have a moderate, positive attitude towards PWDs on both the general SAPD scale and its subscales. A study in another area has likewise found positive attitudes; Terry ((1990) focused on nurse aides' attitudes towards ethnic patients in nursing, and found that DCWs' attitudes were positive in this regard. However, in my study, it is worth noting that a small percent, 22. 3% did not have positive attitudes towards PWDs.

In relation to individual items on the SAPD scale, which was not part of the initial framework of this study, some results showed up that cut across the three subscales as a stated earlier. DCWs' attitudes were very moderately positive about the general abilities (physical, moral, work) of PWDs, but in one physical ability item (2), their attitude was negative. While DCWs' attitudes were not negative in relation to learning (18), they were low moderate positive. Other studies have focused on specific attitudes. Rice, Rosen, and Macmann (1991) focused on expectations of DCWs regarding the learning capacity of PWDs in a residential facility and found that DCWs attitudes were negative in this regard, indicating perhaps that DCWs in group homes have much more positive attitudes than DCWs in residential homes. This is positive news for group homes; low positive attitude is promising for PWDs because learning is an important component in our lives. While some individuals with disabilities have problems in this area, many others who do not are considered as having difficulties learning or even being incapable of doing complex tasks (Smart, 2001).

Relating to discrimination, on specific items their attitudes were positive and more so than other items, but their attitudes were still low moderate. The attitudes of DCWs may have been the highest in discrimination issues because most of the participants were African American and as a minority group they might have identified with PWDs. The low moderate positive attitude is surprising given America's current stance on equality, and the legislation such as the ADA that has been passed.

Variables' Effect and the SAPD and its Subscales

Effect of DCWs' variables on the SAPD General Scale. The variables that had an effect on the general attitudes of DCWs were "training needs", knowledge about disability, and contact with PWDs, and their effects were large, medium large and large respectively. Research (Corrigan et al. 2001; Chung et al., 2001; Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999) has shown that contact with PWDs can lead to positive attitudes towards them. Research (Ashworth et al., 1994; Corrigan et al., 2001; Hunt & Hunt, 2004) has also shown that knowledge about disability can affect attitudes towards PWDs. In fact, education strategies try to change attitudes towards PWDs by educating participants through providing knowledge about disability. Other variables did not have effects on DCWs' attitudes.

For example, motivation for choosing direct care work, years of work experience in working with PWDs, and educational level (three of the research questions in this study) did not influence the attitudes of DCWs.

Effect of DCWs' variables on the SAPD SubScales. For subscale 1 or optimism/human rights (the SAPD first subscale) attitudes, only training need and knowledge had effects on DCWs' attitudes. While in this study, "years of work

experience" did not affect DCWs' attitudes towards PWDs in relation to optimism/human rights or subscale 1, other research (Benham, 1988) has shown that there is a significant difference in optimism/human rights attitudes across years of work experience. They found that those with 6 to 10 years of practice were less optimistic than those with 16 or more years of practice

For subscale 2 only "population DCWs worked with", "knowledge about PWDs", and "contact with PWDs" had effects. For subscale 3, variables of DCWs that had effects on their attitudes towards PWDs were training need, knowledge, and contact. The following section discusses these variables (in general and subscales) effects on the attitudes of DCWs.

Variables and their effects

Several prominent variables in my original framework were not significant, while other non prominent ones ended up being significant. The significant variables were training needs, contact, population DWDs worked with, and knowledge.

Training Needs. Training needs had significant effects on the SAPD scale, and its subscales, 1 and 3. Some differences between and among training need categories were significant, indicating that these categories might have more positive or less positive attitudes than one another. In all the scales, only the means of those whose training needs were a combination of DWC, LAD, and HIWD were significantly different from the means of all the other groups, indicating perhaps that they had lower attitudes than all the other groups in all the subscales. Also, their attitudes were negative. The other group attitudes were the same, as non-significant results were found among them. For the general scale, those with a combination of DWC, LAD, and HIWD had less positive

attitudes than those with DWC, LAD, HIWD, those with a combination of DWC and LAD, and those with no training needs. For subscale 1, those with a combination of DWC, LAD, and HIWD had less positive attitudes than those with DWC, HIWD, and those with no training needs. For subscale 3, those with a combination of DWC, LAD, and HIWD had lower attitudes than those who had training needs of DWC, LAD, a combination of DWC and LAD, and those with no needs.

The differences in training needs effects between the general attitude and subscale 3 is that those with a combination of DWC, LAD, and HIWD had more positive attitudes than those whose training needs were HIWDs in the SAPD scale, but not so in subscale 3. In all the scales, those with a combination of DWC, LAD, and HIWD had less positive attitudes than those whose training needs were DWC and those with no training needs.

For all the scales, those whose needs related to DWC, LAD, and HIWD were the only ones with negative attitudes. Helping DCWs work with less disability groups may help them in their attitudes. Perhaps, the negative attitude of the group that worked with more disability types may be due to over work, which in turn may have led to a negative attitude towards PWDs.

The significant differences between their attitudes and those of the other groups may reflect the idea that those with more work-related needs are not as competent as those without such needs, and this might have influenced attitudes. The findings from the current study are promising because DCWs' training needs differ between and among them.

Contact. Contact had effect on the SAPD scale, and its subscales, 2 and 3. All of the categories under "contact" positively affected the attitudes of DCWs in the SAPD scale. The effect of DCWs' contact in this study was large. Other studies (Corrrigan et al. 2001; Chung et al., 2001; Folsom-Meek, Nearing, Groteluschen, & Krampf, 1999) have showed the positive effect of contact on attitudes towards PWDs.

For Subscale 3 and the general attitudes, all had positive attitudes. In subscale 2, those with little contact and some contact had negative attitudes; however, there were no significant differences between these two groups and the other groups, which had positive attitudes, perhaps indicating that all the groups' attitudes in relation to subscale 2 were the same.

Subscale 3 (pessimism/hopefulness) is the only scale where there were some significant differences between and among contact categories. Those with frequent contact had more positive attitudes than those with very frequent contact. Those with very extensive contact had a more positive attitude than those with very frequent contact. For the significant differences between and among groups, amount of contact determine more or less positive attitudes. There were no other significant differences between categories in the other scales. The lack of significant differences in the other groups perhaps indicated that these categories in contact had the same attitudes towards PWDs.

Population DCWs worked with. For "population DCWs worked with" in subscale 2, those who worked with BI and those who worked with a combination of MR and PD had negative attitudes. It was surprising to see a non significant difference in attitude of those who worked with PD and with the other groups since research (Smart, 2001) has shown that those with PD are the most stigmatized in our society.

Knowledge. For "knowledge about disability," all the categories under knowledge had positive effects towards PWDs. Others studies (Ashworth et al., 1994; Corrigan et al., 2001; Hunt & Hunt, 2004) have shown that even a week of educating people about disability can positively impact their attitudes towards PWDs. Some of these differences between and among knowledge categories in this study were significant, indicating that these categories had effects on the attitudes of DCWs. For the general attitudes, those with the greatest amount of knowledge had the most positive attitudes, and their attitudes were more positive than those who were knowledgeable. For subscale 2 and subscale 3, those with the greatest amount of knowledge had more positive attitudes than those with least knowledge. While all the categories positively affected DCWs' attitudes towards PWDs, all levels of knowledge did not determine more or less positive attitudes, for there were no significant differences between and among some of the groups, indicating perhaps that some groups had the same attitudes towards PWDs. For example, for subscale 1, there were no significant differences between any of the groups. However, one would expect that the more knowledge the better the attitudes towards PWDs, since other research has shown that knowledge about disability can help in positive attitudes.

Nevertheless, it is worth noting that those who are very knowledgeable had more positive attitudes than those whose who are knowledgeable in the general scale and two of the subscales - subscale 2 and subscale 3. This result was expected. This relationship indicates the potential power of increasing DCWs' attitudes (through helping them with more knowledge about disability) in their attitudes regarding their general attitudes and their attitudes regarding their pessimistic attitudes towards PWDs.

For non significant variables and variables categories, power analysis indicate sufficient power may not have existed to detect the various effects, or that the sample sizes needed were not sufficient to detect the effects, if they existed. The power results were below the minimum bench mark of at least 80% (Cohen, 1988).

Limitations

There are a number of limitations in this study and they are worth mentioning. The sample was purposive and therefore sample bias may have affected the study's results. Power calculation of a sample size of 96 was achieved, but making inferences regarding DCWs in Lansing would be premature. Although the sample consisted of the major ethnic groups in the Lansing area, most of the participants were African American; this sample is not representative of all the DCWs in Lansing area.

Also, I have worked in two of the group homes and am very familiar with the situations there, and even in other group homes, since I have worked in group home settings for over 16 years. Also, I know the management of some of the group homes and they were the ones who recommended me to the other group homes. As a result, they played a great role in helping bring the DCWs together so that I could administer the survey. This might have made some not wanting to participate, and this might have resulted in some DCWs not participating genuinely.

Since this study used direct methods to study attitudes, there is a possibility of validity threat, such as reactivity responses, response style, and response sensitization (Livneh & Antonak, 1994). According to Livneh and Antonak, reactive responses may play a role in research outcomes. In other words, participants may discern that their attitudes are being measured and as a result may give answers that would not represent

who they really are. For example, the respondent may want to help the researcher by providing answers that would confirm the hypotheses; or they may try to give a good impression of themselves as open-minded; or they may only endorse statements that represent socially or culturally appropriate responses; or they may sabotage the study by disclosing inaccurate attitudes; or they may not give accurate responses because of lack of interest in the study; or they may be unwilling to share personal responses.

Livneh and Antonak (1994) also stated that response style may be another problem. In this case, the participants may have responded affirmatively to all, or almost all, of the items. It is also possible that they may have responded negatively. Furthermore, they may rate items similarly that they perceive to be related. For example, they may believe that a friendly person is also generous and as a result may rate their attitudes accordingly in other situations even when the friendly person is shown as stingy (through video, for example) during the study. Moreover, they may only choose certain points in the response continuum. For example, they may select only the end points or the midpoint. Finally, they may give uncommon responses (Livneh & Antonak).

A further problem mentioned by Livneh and Antonak is respondent sensitization. In this case, the participants may not have knowledge about PWDs as defined by the author; as a result, the description of the attitudes of direct care workers towards PWDs may be erroneous.

This study was designed to increase the understanding of DCWs towards PWDs. However, we know very little about this population of DCWs, in terms of who they are or where they come from. This could be seen as a limitation, but demographic information gathered does help us to know better now what they represent in the larger

population. Also, it was difficult to find a convenient way of getting the sample; the participants were from different group homes, and so extraneous variables may have affected their responses. However, using different group homes provided an advantage for this study, in that we had a wide range of DCWs' participants. Finally, perhaps the questions DCWs responed to were not written well and as a result this could have resulted in some of the non significant results in his study.

Implications

DCWs help PWDs in important life skills, such as teaching them to groom themselves, basic math and reading, cooking, how to use transportation, and how to recognize danger and emergency situations. Negative attitudes have the potential of adversely affecting PWDs. The findings from this study therefore have important implications.

Practice

Educating DCWs in discrimination issues towards PWDs because of the low moderate positive attitudes is surprising given America's current stance on equality, and the legislation such as the ADA.

Training need. Those whose needs related to a combination of DWC, LAD, and HIWD were the only ones with negative attitudes. The significant differences between their attitudes and those of the other groups may reflect the idea that those with more work related needs are not as competent as those without many needs, and this might have influenced attitudes. Helping DCWs work with fewer groups may help them in their attitudes.

Population DCWs Worked with. Those who worked with BI and those who worked with a combination of MR and PD had negative attitudes in subscale 2. Training may help those who work with these individuals with disability.

Knowledge. For the general attitudes, those with the greatest amount of knowledge had the most positive attitudes, and their attitudes were more positive than those who were either knowledgeable or not very knowledgeable. Also, in the subscales, it is worth noting that those who were very knowledgeable had more positive attitudes than who whose who were knowledgeable in two of the subscales (i.e. subscale 2 and 3). Perhaps, increasing the level of knowledge of DCWs can help with their general attitudes as well as their attitudes in relation to pessimism.

In regards to learning, as stated above, the attitude of DCWs was low moderate positive. Because learning is an important component in our lives, including the lives of PWDs, and an area where many PWDs need help and/or where they have been unfairly seen as not capable of progressing, management should make sure that DCWs' attitudes in this area improve from low moderate positive attitudes to a high positive. Management can focus on helping them improve on their attitudes towards PWDs through increasing their knowledge about disability, especially in the areas of disability and learning.

Research

Training Need. There has been no research in the areas of training needs of PWDs and how these affect their attitudes. Research in this area is needed given the fact that DCWs have training needs with potentials of affecting their attitudes.

Contact. While there is research on contact and attitudes towards PWDs in general, there is no research on which type of contact can affect attitudes. This study did

not show any relationship between type of contact and attitudes towards PWDs probably because of the small sample size of some groups relative to other groups. Future research can try to increase sample sizes in the groups in order to see whether type of contact can impact attitudes towards PWDs.

Knowledge. Knowledge about disability as we see in this study is related to attitudes towards PWDs. Researchers can replicate this study with different DCWs to see whether they can find similar results as this study. Also, they can focus on which type of knowledge can positively impact DCWs' attitudes. This way we can use the appropriate knowledge to help DCWs improve their attitudes towards PWDs.

The unexpected, non-significant difference between groups mentioned above may be due to small sample sizes of some groups relative to other groups.. Research using larger sample sizes in these categories can shed light in this area.

Conclusions

Results regarding DCWs' demographic and other variables' effects on DCWs' attitudes shows that some variable had effects while others did not. Comparison within variables shows significant differences between and among some of groups, indicating that some variable had more positive or negative attitudes than others, and non significant differences in others.

Negative attitudes towards PWDs have reduced opportunities for them, including important life goals and opportunities such as employment, health care, education, and other areas. DCWs are definitely not immune to negative attitudes towards PWDs, as we have seen in this study. In general, there were some DCWs with negative attitudes and specific groups of DCWs also had negative attitudes. The positive

attitudes of DCWs notwithstanding, less than high positive attitudes, as was seen in the area of learning, can negatively impact their lives. As I mentioned above, learning is important for human progress and as a result DCWs need to have high positive attitudes in this area.

Knowledge about disability as we see in this study is related to attitudes towards PWDs. Those who were very knowledgeable had more positive attitudes than whose who were not very knowledgeable. Perhaps, helping DCWs become more knowledgeable will help in their attitudes towards PWDs. Strategies that have shown success in changing attitudes towards PWDs in other studies may have the potential to help DCWs improve their attitudes as they help PWDs in basic but important living activities in life. The lives of PWDs are too important to be affected by negative attitudes towards them.

APPENDIX A: DCWs Demographic and Other Variables

Demographic Questions

(1) Age last birthday:

____

(2) Gender:

□ M

□ F

(3) Heritage:

□ White

□ Black

□ Hispanic

□Oriental

□Other (Please specify) ----------

(4) Highest educational level attained (Check only one):

□Some High School/GED

□ High School Graduate

□College Freshman

□College Sophomore

□ College Junior

□College Senior

□Bachelor's Degree

□Bachelor's Degree +15 credits

□Master's Degree

□Specialist Degree

□Doctorate

Additional questions

1. How many years have you been working as a direct care worker?

---

2. What were your reasons for choosing direct care work?

---

3. What types of individuals do you work with (e.g. individuals with brain injuries, developmental disabilities)? Check all that apply.

   □Brain Injury

   □Developmental Disability

   □Mental Retardation

   □Others ----------

4. What do you do in the group home (e.g. helping clients with hygiene, such as bathing and dressing; teaching clients basic math; taking clients in the community)?

---

5. Have your feelings changed over the years about the clients you work with?

APPENDIX A: DCWs Demographic and Other Variables (Cont'd)

6. What do you believe are your training needs? List as many as you can

---

7. What is your level of satisfaction in doing direct care work from a scale of 1 to 5, 1 representing no satisfaction and 5 represent extreme satisfaction?

APPENDIX B: Scale of Attitudes Toward Disabled Persons – Form R

Please rate your general knowledge of the conditions and life circumstances of persons with a disability from a scale ranging from 1 to 6, 1 representing no knowledge and 6 representing extensive knowledge

No Knowledge *Extensive Knowledge*

1 2 3 4 5 6

Please rate the frequency of your contact with persons with a disability:

Very Infrequent *Very Frequent*

1 2 3 4 5 6

Directions: The statements presented below express opinions or ideas about persons who are disabled. There are many differences of opinion; many persons agree and many persons disagree with each statement. We would like to know your opinion about them. Circle the appropriate number, from -3 to +3, that best corresponds with how you feel about the statement. There are no right or wrong answers. You should work as quickly as you can, but don't rush. There is no time limit.

Please respond to every statement.

KEY

-3: I disagree very much
-2: I disagree pretty much
-1: I disagree a little
+1: I agree a little
+2: I agree pretty much
+3: I agree very much

APPENDIX B: Scale of Attitudes Toward Disabled Persons – Form R (Cont'd)

	- 3	- 2	- 1	+ 1	+ 2	+ 3
1. Children who are disabled should not be provided with a free public education.						
2.Persons who are disabled are not more accident prone than are other people.						
3.Individuals who are disabled are not capable of making moral decisions.						
4.Persons who are disabled should be prevented from having children.						
5.Persons who are disabled should be allowed to live where and how they choose.						
6.Adequate housing for persons who are disabled is neither too expensive nor too difficult to build.						
7.Rehabilitation programs for persons who are disabled are too expensive to operate.						
8.Persons who are disabled are in many ways like children.						
9.Persons who are disabled need only the proper environment and opportunity to develop and express criminal tendencies.						
10.Adults who are disabled should be involuntarily committed to an institution following arrest.						
11.Most persons who are disabled are willing to work.						
12.Individuals who are disabled are able to adjust to life outside an institution.						
13.Adults who are disabled should not be prohibited from obtaining a driver's license.						
14.Persons who are disabled should live with others who are similarly disabled.						

APPENDIX B: Scale of Attitudes Toward Disabled Persons – Form R (Cont'd)

15.Zoning ordinances should not discriminate against persons who are disabled by prohibiting group homes in residential districts.						
16. The opportunity for gainful employment should be provided to persons who are disabled.						
17.Children who are disabled in regular classrooms have an adverse effect on other children.						
18.Simple repetitive work is appropriate for persons who are disabled.						
19.Persons who are disabled show a deviant personality profile.						
20.Equal employment opportunities should be available to individuals who are disabled						
21.Laws to prevent employers from discriminating against persons who are disabled should be passed.						
22.Persons who are disabled engage in bizarre and deviant sexual activity.						
23.Workers who are disabled should receive at least the minimum wage established for their jobs.						
24.Individuals who are disabled can be expected to fit into our competitive society.						
	- 3	- 2	- 1	+ 1	+ 2	+ 3

APPENDIX C: Invitation

The Attitude of Direct Care Workers towards People with Disabilities: An Exploratory Study

I am interested in investigating the attitudes of direct care worker towards persons with disabilities in general, and the relation between direct care workers' attitudes towards persons with disabilities and motivation for choosing a career (direct care work, for example), number of years worked, level of education, and the gender and race of direct care workers. This is a research to help benefit the rehabilitation counseling field, managers, yourself (direct care workers), and individuals with disabilities. Your help will be greatly appreciated.

I am inviting you to participate in this research study. Participants will be asked to complete a short survey regarding their attitudes toward persons with disabilities. Participation in this study should take 10 to 15 minutes of your time.

For your time, each participant will be entered into a lottery. There will be two drawings. Participants can win $100 on the first drawing and $50 on the second. The first drawing will take place ten days after I have distributed the questions to all the group homes. Participants will only be included in one lottery and lottery winners will be drawn by number. The second drawing will be two weeks after the first drawing.

For further questions please contact me at dialloab@msu.edu or 336-235-5598.

APPENDIX D: Information Regarding the Study

The Attitude of Direct Care Workers towards People with Disabilities: An Exploratory Study

Before you participate in my study, it is important to understand several principles: 1) Taking part in this study is voluntary; 2) you may or may not benefit from participating in this study. However, the findings from your participation may benefit your employer, the field of rehabilitation, yourself, and individuals with disabilities; 3) you can withdraw at anytime you choose to; 4) you do not have to answer to all questions; 5) you can ask questions now, when you are responding, and after you have responded. In other words, you can ask questions at any time. Please feel free to contact me if you have questions or concerns about the research; 6) you have about 35 survey questions to answer to on paper; 7) the study should take about 10 to 15 minutes.

Research Study:

We know very little about the attitude of direct care attitudes towards persons with disabilities because research is scant in this area. Direct care workers play an important part in the lives of persons with disability and therefore it is important that we know the attitudes of direct care workers towards persons with disabilities. The purpose of this research study is to investigate the attitudes of direct care workers towards individuals with disabilities. Your participation will help us investigate the attitudes of direct care workers' towards person with disabilities in general, and the relation between direct care workers' attitudes towards person with disabilities and motivation for choosing a career (direct care work, for example), number of years worked, level of education, and the gender and race of direct care workers.

You must be 18 years old in order to take part in this study. Participants are asked to answer to some questions regarding their attitudes towards persons with disabilities. Participants will be entered into two separate lotteries in which they can win $100 in the first lottery and $50 in the second lottery. After completing the questionnaire, participants are asked to submit their responses to me.

The first drawing, in which a single number will be drawn for a $100 prize, will take place ten days after I have distributed the questions to all the group homes. The second drawing, in which a single number will be drawn for $50 prize, will take placed two weeks after the first drawing or after I get 96 participants. All participants that have completed the study will be placed into the lottery. However, only those who complete the study in time will be eligible for the first lottery. Participants' numbers will be put in a box and one of the secretaries for the rehabilitation counseling program will draw a

single number from the box. The winners will be notified by their managers and arrangement will be made at that time to deliver their prizes.

Participants will only be included in one lottery and lottery winners will be drawn by number. Names will not be associated with numbers. Please retain number for redeeming you prize if you win.

Risk:
There are no anticipated risks for participating in this study. However, some participants might experience an emotional reaction regarding information about persons with disabilities.

Benefits:
The results of this study have the potential of extending existing knowledge in terms of the attitudes of direct care workers towards persons with disabilities in the rehabilitation literature. More specifically, the rehabilitation counseling field can be informed about direct care workers' educational level, motivation for choosing direct care work, experience working with persons with disabilities, the gender and race of direct care workers, and the relationships of these factors with direct care workers' attitudes towards persons with disabilities. Administrators and managers can use this knowledge in employing the best employees.

There are also implications for the practice of rehabilitation professionals if direct care workers and the specific groups have negative attitudes towards persons with disabilities. Understanding the attitudes of direct care workers towards persons with disabilities can better help rehabilitation professionals to train direct care workers and to help them provide the best service with positive attitudes towards persons with disabilities.
Likewise, Rehabilitation professionals can help direct care workers with negative attitudes to benefit from attitudinal training, which ultimately will benefit persons with disabilities.

Confidentiality:
Participants are asked to provide demographic variables (age, race, sex). No other personally identifying information will be requested. Participants are asked not to provide their names or the names of the group homes they work. I will shuffle the participants' responses after the participants hand them to me. Also, I will shuffle the group homes' responses so that no one identifies which responses belong to a specific group home. The shuffling of responses within and between group homes will make it high unlikely for me or my advisor or the IRB to identify people. However, I will still exclude the participants I or my advisor knows. I doubt if my advisor knows the direct care workers in the group homes. However, I will ask him if he knows certain people

who work in the group homes as direct care workers. If he does, I will exclude the participants.

No one will see the responses except me, my professor who is overseeing the study and the IRB (if the IRB audits me). I will exclude the participants who I know. I will put the copies (answers) in a bag (with a lock).Also, the information will be stored in a computer password file and it will be destroyed three years following closure of my IRB protocol. The participants' raffle numbers will not be connected with individual data.

As soon as I receive responses, I will put them in a locked bag, and I will be the only one to have the key to the bag and the password to the research file (with the responses). Your confidentiality will be protected to the maximum extent allowed by law.

Voluntary Participation/Withdrawal
Your participation in this study is voluntary. You may decide not to participate in this study. If you do participate, you may freely withdraw from the study at any time. You may also refuse to
answer any particular questions.

Questions
If you have concerns or questions about the study, such as scientific issues, how to do any part of it, or to report an injury, please contact the study investigators:

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Please use the following statement for the HRPP contact information...
If you have any questions or concerns about your role and rights as a research participant, or would like to register a complaint about this study, you may contact, anonymously if you wish, the MSU Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824.

You indicated your voluntary agreement to participate by completing and returning this survey.

You indicated your voluntary agreement to participate by completing and returning this survey.

APPENDIX E

Subscale 1 Questions

1.Persons who are disabled are not more accident prone than are other people.

2.Persons who are disabled should be allowed to live where and how they choose.

3.Adequate housing for persons who are disabled is neither too expensive nor too difficult to build.

4.Most persons who are disabled are willing to work.

5.Individuals who are disabled are able to adjust to life outside an institution.

6.Adults who are disabled should not be prohibited from obtaining a driver's license.

7.Zoning ordinances should not discriminate against persons who are disabled by prohibiting group homes in residential districts.

8.The opportunity for gainful employment should be provided to persons who are disabled.

9.Equal employment opportunities should be available to individuals who are disabled.

10.Workers who are disabled should receive at least the minimum wage established for their jobs.

11.Individuals who are disabled can be expected to fit into our competitive society.

APPENDIX F

Subscale 2 Questions

1.Rehabilitation programs for persons who are disabled are too expensive to operate.

2.Persons who are disabled need only the proper environment and opportunity to develop and express criminal tendencies.

3.Adults who are disabled should be involuntarily committed to an institution following arrest.

4.Persons who are disabled should live with others who are similarly disabled.

5.Children who are disabled in regular classrooms have an adverse effect on other children.

6.Simple repetitive work is appropriate for persons who are disabled.

7.Laws to prevent employers from discriminating against person who are disabled should be passed.

APPENDIX G

Subscale 3 Questions

1. Children who are disabled should not be provided with a free public education.

2.Individuals who are disabled are not capable of making moral decisions.

3.Persons who are disabled should be prevented from having children.

4.Persons who are disabled are in many ways like children.

5.Persons who are disabled show a deviant personality profile.

6.Persons who are disabled engage in bizarre and deviant sexual activity.

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