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The effects of a wheelchair on social interaction

Nora Lee Sobaszekiewicz Merck
San Jose State University

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THE EFFECTS OF A WHEELCHAIR ON SOCIAL INTERACTION

A Thesis

Presented to

The Faculty of the Department of Occupational Therapy

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

By

Nora Lee Sobaszkiewicz Merck

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APPROVED FOR THE DEPARTMENT OF OCCUPATIONAL THERAPY

Gordon U. Burton, Ph.D, OTR

Heidi McHugh Pendleton, M.A., OTR

Donavan A. Merck

APPROVED FOR THE UNIVERSITY

ABSTRACT

THE EFFECTS OF A WHEELCHAIR ON SOCIAL INTERACTION

by Nora Lee Sobaszkiewicz Merck

This study investigated whether the use of a wheelchair appeared to affect a person's social interaction with the general public. The study included an able-bodied caucasian female who participated as an able-bodied person, sitting on a bench, and then posed as a disabled person, sitting in a wheelchair. She elicited responses from 120 randomly selected able-bodied passersby in a shopping mall. The researcher recorded the following social interactions of passersby: eye contact, staring, gaze aversion, smiles, greetings of less than 5 seconds, conversation of more than 5 seconds, touch, negative gestures, path avoidance, and no response. Although results indicated that there were negligible differences in positive and negative interactions, there was a difference in the quality of verbal interactions, specifically of conversation, which occurred more often when the participant was in the wheelchair portraying a disabled person. The study provides recommendations for further research.

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of this study was to explore the extent to which the use of a wheelchair appears to affect social interaction with the general public.

Statement of the problem

American society places great emphasis and value on productivity and physical attractiveness (Pedretti, 1985). "The worship of the beautiful body and the 'cult of physical attractiveness,' are reinforced by the media. The cultural ideal of physical wholeness and physical attractiveness sets a standard, which visibly physically disabled persons find difficult to meet" (Goldberg, 1981, p. 67). As a result, Americans often see persons with disabilities as unattractive, of less value, and unapproachable because of their disabled bodies and the assistive devices they use (Eddy, Hart, & Boltz, 1988). It has been well documented that people with disabilities have atypical social experiences with the able-bodied population including discrimination and social stigmatization (Bedini, Bialeschki, & Henderson, 1992; Eisenberg, 1982; Fichten & Bourdon, 1986; Glueckauf, Horley, Pouchinsky, & Voquel, 1984; Glueckauf & Quittner, 1992; Goffman, 1963; Mader, Hart, & Bergin, 1989; Schneider & Anderson, 1980; Siller, 1976).

The need for studying the behaviors of the able-bodied population in relation to disabled persons becomes critical as we look at the number of persons with disabilities. Approximately, two percent of babies are born with abnormalities that result in mobility restrictions and stigmatization (Russell, 1985, as cited in Mader, et al., 1989). A 1990 survey revealed that nearly 2,000,000 working-aged Californians have disabilities (California Department of Rehabilitation, 1995). There are an estimated 43,000,000 Americans with disabilities, and of these, 1,000,000 use wheelchairs for mobility (Laplane, 1991). Therefore, the object of interest in this study is looking at the wheelchair and its effects on social interaction when the individual using the wheelchair has no other obvious physical or cognitive impairment.

Occupational therapy supports the belief that humans exist as biological, psychological, and social beings and that all therapeutic intervention must be designed with each of these aspects in mind (Pennington & Sharrot, 1985). We know that interaction between the person and the environment is essential to the development of functional independence (Pedretti, 1985). There is a need for occupational therapists to develop a deeper understanding of the extent to which wheelchairs and other adaptive devices do or do not stigmatize persons with disabilities. Additional research on how wheelchairs affect social interaction may help to (a)

integrate people with disabilities into community and other social settings, (b) reduce negative and discriminatory judgements against people with disabilities, and (c) help able-bodied people to experience the real personalities of the people who use wheelchairs for mobility. Both laboratory and field research are needed to evaluate interactions between people with and without disabilities to learn more about their thoughts, feelings, attitudes, and social behavior in the everyday world (Fichten & Bourdon, 1986; Fichten, Robillard, Tagalakakis, & Amsel, 1991).

Questions

1. Does the general public's quality of social interaction change or appear different, when an encounter takes place with an individual, depending on if the individual appears to be able-bodied or appears disabled using a wheelchair?
2. Does the general public's positive or negative social interactions differ when an individual is sitting in a wheelchair, apparently disabled, and when an individual is sitting on a bench, apparently able-bodied?

Hypotheses

1. During a social encounter with the general public, there will be a difference in the quality of social interactions received by an individual who is sitting in a wheelchair, apparently disabled, and

an individual who is sitting on a bench, apparently able-bodied.

2. During a social encounter with the general public, there will be a difference in positive or negative social interactions received by an individual, who is sitting in a wheelchair, apparently disabled, and an individual who is sitting on a bench, apparently able-bodied.

Definitions

Conceptual Definitions

Able-bodied: A healthy individual without physical limitations or disability.

Adult: A person who has reached an age set by law that qualifies him for full legal rights.

Conversation: The act or instance of talking together; familiar talk; verbal exchange of ideas.

Different (differ): Not alike; dissimilar; not the same; distinct; separate.

Disabled: One who is functionally limited in mobility and/or completing daily activities due to injury or illness.

Encounter: An act of meeting unexpectedly; a meeting with another, especially when unexpected or by chance.

Eye contact: The state or fact of being in touch, communication or association with by means of the eyes.

Gaze aversion: The act of changing the direction of one's

vision and/or turning away.

General public: The people as a whole in the community at large.

Greeting: A short polite expression of greeting or good will; salutation.

Negative gesture: A movement, or movements collectively, of the body, or of part of the body, to express or emphasize negative ideas or emotions.

Negative social interaction: An interaction characterized by ignoring, resisting, or opposing; having the effect of diminishing, depriving, or denying.

No response: Nothing said or done in reply, reaction, or answer to a question.

Participant: A person who participates, takes a part or shares in an activity, enterprise, etc.

Path avoidance: The evading or moving away from the route or course along which one moves.

Population sample: The total persons included as subjects used for a research study.

Positive social interaction: An interaction characterized by displaying acceptance, pleasantries, or good will.

Quality: The degree of excellence or superiority which a thing possesses; the essential character of something.

Smile: To have or take on a facial expression showing usually pleasure, amusement, affection, friendliness, etc., and characterized by an upward curving of the

mouth.

Social interaction: People demonstrating verbal and non-verbal communications, gestures, or body language in reaction to one another.

Staring: To gaze or look steadily and intently with wide open eyes, as in fear or wonder; an intent, fixed look.

Subject: Someone or something made to undergo a treatment, experiment, or analysis.

Touch: To put the hand, finger, or some other part of the body on something/someone else, so as to feel.

Operational Definitions

Able-bodied: An ambulatory adult without visible limitations or disability.

Adult: An individual who appears to be of voting age.

Conversation: A communication of more than 5 seconds (to be checked off on the charting instrument in this study; see Appendix A).

Different (differ): Characterized by not being exactly the same.

Disabled (apparently): In this study, the able-bodied participant using a wheelchair.

Encounter: The action of the participant asking a subject from the population sample for the time of day.

Eye contact: The action of the participant's and subject's eyes meeting during a social interaction (to be checked off on the charting instrument in this study; see

Appendix A).

Gaze aversion: The action of the subjects in the study keeping their vision off or looking away from the participant during a social interaction (to be checked off on the charting instrument in this study; see Appendix A).

General public: The individuals randomly chosen to be in the study and selected from all able-bodied adults in the surrounding area.

Greeting: A positive interaction by the subject with the participant, lasting less than 5 seconds (to be checked off on the charting instrument in this study; see Appendix A).

Negative social interaction: The action of the subject in the study exhibiting any of the following behaviors: staring, gaze aversion, negative gestures, negative touch, path avoidance, and/or no response (to be checked off on the charting instrument in this study; see Appendix A).

Negative gestures: The exhibition of physical movements with the hands, body, or facial expressions to express obvious non-acceptance, rudeness, aversion, or general negativity in response to the participant (to be checked off on the charting instrument in this study; see Appendix A).

No response: The action of the individual subjects in the

study not exhibiting glances, gestures, verbal, or non-verbal responses toward the participant (to be checked off on the charting instrument in this study; see Appendix A).

Participant: A 40-year-old able-bodied caucasian female participating as the apparently able-bodied person when sitting on the bench and participating as the apparently disabled person when sitting in the wheelchair.

Path avoidance: The action of the subjects visibly changing the direction of their movement away from the participant (to be checked off on the charting instrument in this study; see Appendix A).

Population sample: The able-bodied adults used in this study.

Positive social interaction: The action of the subjects in the study exhibiting any of the following behaviors: eye contact, smiles, greetings, conversation, and/or positive touch (to be checked off on the charting instrument in this study; see Appendix A).

Quality: The degree of excellence of interactions. In this study, it is assumed that conversations rank higher in quality than smiles, and smiles rank higher than glances/eye contact. In addition, it is assumed that interactions exceeding 5 seconds are of higher quality than those of 5 seconds or less (Mader et al., 1989).

Smile: The subject's facial expression showing pleasure, amusement, affection, friendliness, etc. (to be checked off on the charting instrument in this study; see Appendix A).

Social interaction: The subject's verbal or non-verbal reactions after the participant has made initial contact by asking the time of day.

Staring: Intent glaring at the participant during a social interaction (to be checked off on the charting instrument in this study; see Appendix A).

Subject: An able-bodied adult who is asked the time of day by the participant in the study.

Touch: The subject's exhibition of any form of physical contact with the participant during a social interaction. The participant will subjectively determine whether the touch was positive, characterized by feeling comfortable, or negative, characterized by feeling uncomfortable (to be checked off on the charting instrument in this study; see Appendix A).

Assumptions

1. The participant, when using the wheelchair, was perceived as disabled by the passersby.
2. The participant, when not using the wheelchair, was perceived as able-bodied by the passersby.

Limitations

1. The population sample was 120 adults in one California shopping mall. The results may differ in another shopping mall, depending upon the city or state, and differing attitudes towards persons with apparent disabilities. For example, it is possible that in a more conservative state, the general public's attitudes and actions toward the disabled population and adaptive equipment they use, may differ than that of the general public in a more liberal state such as California.
2. One participant was used in the scenarios for this study. Although this may appear a limitation, the study was designed to use one participant, specifically, to decrease variables in the study.
3. The participant in the study was not disabled. Although this may appear a limitation, the study was designed to use an able-bodied person, specifically, in attempt to focus on the wheelchair as the main variable in the study. It is possible that the results may have varied if the participant was noticeably disabled. A person with a true disability may have acted and reacted differently during the social encounters and therefore interactions with the population sample may have differed. Despite this possibility, the focus of

this study was to examine what effect the wheelchair had on the social interactions.

Significance of the Study

Research has continued to report that disability, accompanied by the use of adaptive equipment, is seen as a stigma in our society by the able-bodied population and that the able-bodied react differently toward the disabled (Bedini et al., 1992; Fichten & Bourdon, 1986; Gardner, 1991; Gleuckauf et al., 1984; Glueckauf & Quittner, 1992; Kleck, Ono, & Hastorf, 1966; Schneider & Anderson, 1980). Although many research reports focus on the feelings, attitudes, and behaviors of the able-bodied toward persons with disabilities, including the adaptive equipment they use, the studies have often used hypothetical or simulated scenarios in the form of questionnaires, checklists or interviews rather than real social situations (Anderson & Antonak, 1992; Berry & Jones, 1991; Fichten & Amsel, 1988; Fichten & Bourdon, 1986; Fichten et al., 1991; Gardner, 1991; Garske & Thomas, 1990; Gordon, Minnes, & Holden, 1990; Ibrahim & Herr, 1982; Thorn, Hershenson, & Romney, 1994). Most researchers recommend using real-life situations in determining the true responses of able-bodied persons toward the disabled and the adaptive equipment they use.

This study, conducted in a current real-life environment, has yielded results regarding the quality of social interactions exhibited by the general public toward

the apparently disabled, using a wheelchair, compared to the quality of interactions with the apparently able-bodied.

This study is one step toward identifying the able-bodied persons' specific social interactions, behaviors, and attitudes toward the disabled and their equipment that may change or differ as they interact with a disabled person.

CHAPTER 2

LITERATURE REVIEW

The following literature review is presented in five topic areas: the effects of disability on personal identity; the effects of disability on social interaction; the stigma of adaptive equipment; the developmental frame of reference; and the role of occupational therapy in improving social interaction.

The Effects of Disability on Personal Identity

Prior to reviewing social interactions and the use of adaptive equipment, it is important to gain a perspective on the effects of a disability on the person who has the disability. In addressing issues related to personal identity, Pennington and Sharrot (1985) report that health care practitioners often use an insider/outsider perspective. The insider perspective is the view a person with a disability has about self. It is the person's recognition of what he or she expects to accomplish and the nature and degree of impact the disability has in terms of that expectation and life satisfaction. Rather than viewing disability as a pervasive and major negative influence in one's life, most persons with disability, approximately 60 percent, perceive it as only an inconvenience or simply a fact of life. The outsider perspective is the able-bodied person's perception of the disability and its impact on capacity and life satisfaction. The outsider generally views

the person with a disability as tragic and depreciated, a view which often does not correspond to the view held by the person with the disability. Increasingly, people with disabilities express pride in the perspectives and skills they have developed in living with the dual challenge of disability limitations and social stigma (Gambrill, Florian, & Splaver, 1986; Gill, 1987; Hamel, 1992). They assert their full and equal citizenship. Also, as disabled people become more active and vocal in asserting their rights, they are sharing important information about the experience of disability in our society (Fichten & Bourdon, 1986; Stephens & Norris-Baker, 1984). In fact, they are challenging the definitions and models of disability traditionally utilized in rehabilitation practice. Gill (1987) reports on the interactional or socio-political model, a conceptualization of disability which differs significantly from the medical model and which is rapidly gaining adherents among disability experts. From this perspective, disability is defined not only by the physical qualities of an individual but also by the corresponding response of the social environment. Disability, in this view, does not reside solely with the individual; rather, it derives from the interaction between the individual and society. Disabled people, regardless of medical diagnosis, have begun to acknowledge their common treatment by a society which generally devalues and fears disability (Fichten & Bourdon,

1986; Gardner, 1991; Gill, 1987; Peloquin, 1993). This devaluation and consequent social oppression, they say, result in a shared feeling of what it means to be a disabled person in our culture. Many disabled individuals object to any view of disability as inherently negative (Gill, 1987; Hamel, 1992). Their argument is that the disability, which may include the use of adaptive equipment, has become an integral part of who they are. To reject the disability is to deny an essential building block of their identity (Gill, 1987). It is relevant to examine the different views on disability and how these views may affect interaction between the disabled and the able-bodied public, which will be discussed in the next section.

The Effects of Disability on Social Interaction

Isolation and interpersonal rejection plague disabled people due to pervasive prejudice regarding disability in our culture (Gill, 1987). Physically disabled adults are confronted with a number of difficult social interactions with the able-bodied public. Negative attitudes, embarrassing social situations associated with the disability, and inconsistent behaviors and reactions of the able-bodied are common stress factors that disabled persons face (Glueckauf et al., 1984). Goffman (1963) reports on the effects of social stigma in regards to the disabled person. His assertion is that social encounters with stigmatized individuals, including those persons with disabilities, are

likely to be avoided, and if interaction is necessary, the able-bodied become anxious and constrained in their behavior. Goffman also asserts that people with demonstratable stigma are seen as not quite human and reduced in society's mind from a whole usual person to a tainted, discounted one.

Theorists and researchers have argued for years that the values attached to differences in physical characteristics and abilities are a significant factor influencing the provisions a society makes for the education, employment, and community integration of persons with disabilities (Anderson & Antonak, 1992; Bates, Spencer, Young, & Rintala, 1993; Berry & Jones, 1991; Fichten & Amsel, 1988; Goffman, 1963; Kleck, Ono, & Hastorf, 1966). Environmental factors pose many barriers of discrimination, marginality, and uncertain social acceptance. (Fine & Asch, 1988; Goffman, 1963; Kleck et al., 1966).

Fichten and Bourdon (1986) completed a study that examined the interactions and behaviors of the able-bodied and disabled toward one another. The study involved hypothetical situations between wheelchair users and able-bodied college students. Social interaction questionnaires were completed by both groups and analyzed. The researchers report that able-bodied college students engage in a wide variety of behaviors deemed inappropriate by their disabled peers. These behaviors include: avoidance of or premature

termination of interaction; missionary or 'do-gooder' behavior; preemptive or overly solicitous behavior; patronizing behavior; behavior that reflects gross ignorance; and behaviors that convey the assumption that those using wheelchairs fit certain stereotypes.

Gordon, Minnes, and Holden (1990) completed a study examining attitudes toward persons with disabilities when specific disabilities and different social contexts are considered. The study included university students in 5 health care areas. Students in the fields of occupational therapy, physical therapy, medicine, nursing, and clinical psychology were asked to complete questionnaires focused on particular social relationships and interactions with disabled persons. The results indicated that apprehensions concerning social stigmatization, situational constraints, and respondents' perceptions of functional limitations as interfering with relationships.

Berry and Jones (1991) completed a study focused on the situational and dispositional components of reactions toward people with disabilities. The study included American college students who completed questionnaires focused on reactions and responses toward disabled persons in hypothetical social situations. The results indicated that both the attitude toward the disabled and the threat of uncomfortable social situations contributed to the negative emotional responses of able-bodied students toward their

disabled peers.

Schneider and Anderson (1980) report on attitudes toward the disabled population as a stigmatized group. The article reviews research on factors that influence the degree of stigma attached to handicaps. Four major areas are discussed: a) the ranking of handicaps, b) personality factors, c) how specific professional groups respond to handicaps, and d) how attitudes toward the stigmatized might be changed. The researchers conclude that some handicapped groups receive more resistance than others (e.g., those perceived as having less control and with visible physical disabilities). The researchers also suggest that the handicaps that are most difficult for the general public to predict or understand draw the most negative reactions.

Gardner (1991) published an article that addressed stigma and public places. The article was based on interviews with individuals within stigmatized groups, including people with disabilities. The researcher concluded that access to public places is limited for people who may "constitute a disgusting sight," that membership in some stigmatized groups does not merit presence in public places at all, and that the quality of stranger-to-stranger communication in public places is overwhelmingly appearance dependent.

Eddy, Hart, & Boltz (1987) completed a study on the effects of service dogs on social acknowledgements of people

in wheelchairs. The study reported that the stigma of a physical impairment frequently evokes discomfort and stifled behavior from the able-bodied persons. The study examined the behaviors of the able-bodied public in response to participants when they were accompanied by a service dog and when they were not. Observations were made amid pedestrian traffic on a college campus and shopping centers. Results indicated that both smiles and conversations from passersby significantly increased when the dogs were present. The findings suggest that the benefits of service dogs for their owners extend beyond working tasks to include enhanced opportunities for social exchange. They also report that the service dogs substantially reduced the tendency of able-bodied people to ignore or avoid the disabled person.

Little research demonstrates positive attitudes toward persons with disability. However, when Garske and Thomas (1990) examined the attitudes of beginning graduate students in rehabilitation counseling toward persons with disabilities, they concluded that the students in this study demonstrated positive attitudes toward the disabled. They also reported that unlike many other studies, this study did not find a significant relationship between actual contact with the disabled and attitudes toward them. They conclude that the failure to find significant relationships may have been due in part to the relative homogeneity of the study group in terms of attitudes. As noted in this literature

review, the adaptive equipment disabled persons use is often pointed out in phrases such as "a wheelchair user" rather than "a person with a mobility impairment" which focuses on the adaptive equipment rather than the actual disability. It is appropriate to examine the role of the adaptive equipment used by disabled persons and the stigma often attached to that equipment.

The Stigma of Adaptive Equipment

In the 1980's, there was a reported \$1.5 billion in sales of assistive devices in the United States (Scherer, 1988). Researchers report that, in spite of the extensive expenditure of both private and public funds and the proliferation of adaptive equipment, there have been few evaluations of the utilization of assistive devices, benefits to their users, or the effectiveness of the programs intended to make them available (Neville-Jan, Piersol, Kielhofner, & Davis, 1992; Scherer, 1988).

In one study exploring the use of adaptive equipment, Hulme, Schulein, Hulme, Poor & Pezzino (1983) reported that the long-term use of wheelchairs correlated with significant improvement in the number of times clients left their homes and the increased variety of places clients went in the community. The results indicated that the use of adaptive equipment provided an improved quality of life, both in the home and in the community.

In a study by Scherer (1988) some people with physical

disabilities productively used assistive devices and saw them as improving the quality of their lives while others did not. It was noted that assistive device users saw their quality-of-life as being within their control, whereas non-users believed otherwise. It was concluded that increased functional capabilities gained through assistive device utilization and the attainment of a "normalized" quality-of-life may present users with generalized "high functioning" expectations and frustrations for which their prior socialization did not prepare them.

Bates, Spencer, Young, & Rintala (1993) completed a study focusing on adaptation to wheelchair use and found both pragmatic and emotional components were important to the adaptations of the user. It was noted that successful pragmatic adaptation hinged in part on emotional acceptance of the wheelchair. It was suggested that persons may encounter their first wheelchair already burdened with the mixed negative views shown to be prevalent in contemporary society. The existence, among persons without disabilities, of prejudice against wheelchairs and their riders has been well documented in the literature (Fichten & Bourdon, 1986; Fichten et al., 1991). Persons without disabilities show symptoms of social strain around persons in wheelchairs, including short interaction times, excessive physical distance, and negative self-talk (Fichten & Amsel, 1988; Fichten & Bourdon, 1986; Fichten et al., 1991; Kleck et al.,

1966). Persons without disabilities are not alone in these conflicting views about wheelchair use. Wheelchairs have received mixed ratings from their users as well (Bates et al., 1993; Scherer, 1988). Fichten, Robillard, Tagalakakis, & Amsel (1991) report that wheelchair users preferred the company of persons without disabilities to that of other wheelchair users. New wheelchair users find themselves facing the architectural and attitudinal barriers of society, while still struggling to reorganize their own attitudes (Bates et al., 1993). As noted in these studies, adaptive equipment is an issue of concern among disabled persons, especially the affect of the equipment and reactions of others in one's environment. It is pertinent to discuss disability, social interactions, and occupational therapy, specifically, in relation to the developmental frame of reference which provides a focus on a person's development and interaction with their environment.

The Developmental Frame of Reference

The developmental frame of reference includes the physical, social, and psychological parameters of human life roles, tasks, and relationships as the focus of occupational therapy intervention (Reed, 1984). A primary concentration is on the developmental aspect of the human organism as it interacts with its environment. The developmental theory encompasses a holistic view of the growth and development process that takes place throughout a person's life span, a

process which affects and, in turn, is affected by environmental stimuli (Llorens, 1977).

The developmental frame of reference asserts that humans develop simultaneously and chronologically in areas of neurophysical, physical, psychological, and psychodynamic growth and in the development of language, daily living skills, and sociocultural skills at specific periods. Mastery of these skills is necessary for developing coping behaviors and adaptive relationships. Physical and/or psychological trauma can interrupt growth and development and influence coping behavior and adaptation. Positive, healthy social interactions are important as these are the base for beginning communication which then can lead to social relationships.

Occupational therapy is concerned with facilitating growth and development; therefore, evaluation of behavior and performance is necessary to determine the need for occupational therapy. Occupational therapy provides growth experiences to prevent potential maladaptation through skilled application of activities (Reed, 1984). Skills acquired through practice and mastery become problem-solving methods that enhance one's self-confidence, self-concept, and self-esteem, thus allowing for a higher degree of successful interaction between one's self and the environment (Shortridge, 1988). It is meaningful to further examine the role of occupational therapy in facilitating

social interactions and relationships, especially between the disabled and the able-bodied public.

The Role of Occupational Therapy in Improving Social Interaction

"Throughout its history, the focus of the occupational therapy profession has been on the nature of the total individual in relation to society and the world in which the person lives" (Hopkins, 1988, p. 39). Cultural attitudes and values acquired from childhood are influencing factors in the process and outcome of rehabilitation. Cultural education within the family determines what is considered physically attractive, what aspects of the body are most prized and, thus, represent the greatest loss, what physical and mental disabilities are the most accepted, and what degree of deviation from the norm will be allowed without social rejection (Versluys, 1977). Occupational therapy, through a variety of activities, can assist in closing the gap between the disabled person's expectations and abilities by increasing neurophysiological, physical, daily living, and sociocultural skills (Shortridge, 1988).

The physical, social, and psychological parameters of human life roles, tasks, and relationships are the focus of occupational therapy intervention. A primary concentration is on the developmental aspect of the human organism as it interacts with its environment. Occupational therapists must have psychosocial skills for promoting healthy interpersonal

relationships. Occupational therapists are under-utilized in the community in this area, and occupational therapists should take responsibility for educating the able-bodied community in order to foster positive attitudes, social interactions, and relationships between the able-bodied and disabled population.

Occupational therapists must be aware of the ongoing problems that the disabled person faces during the rehabilitation process, including psychosocial effects related to body image, personal and vocational roles, incorporating adaptive equipment into one's life, social stigma, and changes in social encounters and relationships (Bates et al., 1993). A number of studies suggest effective measures that occupational therapists can use to improve the disabled person's social interactions and reduce negative attitudes on the part of both the disabled and able-bodied.

Glueckauf, Horley, Pouchinsky, and Voquel (1984) report on effects of assertion training for disabled individuals. Their study included an 11-week assertiveness training program. They conclude that the treatment group, on the average, reported a substantially higher level of perceived assertiveness and acceptance of disability and substantial lower levels of social discomfort than the control group. Successful social functioning may depend on the disabled individual's assertiveness skills (Glueckauf & Quittner, 1992) acquired through training by occupational therapists.

A study by Fichten, Bourdon, Amsel, and Fox (1987) concludes that if contact between the disabled and able-bodied is extended, especially on an equal-status basis, that understanding is increased, prejudice reduced, and social comfort enhanced.

An article by Peloquin (1993) includes over 100 vignettes, on patients with illness and disability and their helpers. Often, the helpers fail to recognize that illness and disability are events charged with personal meaning. Helpers often establish a distance that diminishes the disabled, use brusque manners, and misuse their powers. The researcher contends that the vignettes might inspire therapists to recommit their dedication to patients and ensure a climate of caring.

Ibrahim and Herr (1982) completed a study examining the differential effect of two educational strategies in modifying attitudes of potential "helpers" toward disabled persons. One group of the participants in the study were identified as the "informational" group and were exposed to films, written excerpts, and slide shows and discussed problems and prejudices encountered by the disabled. The participants in the second group were asked, over a three-week period, to role-play specific disabilities and to describe them to others. Although both groups positively modified their attitudes toward disabled persons, role playing had the greatest impact.

Occupational therapists have much to gain by studying literature on the psychosocial effects on the rehabilitation of the disabled who do and do not use adaptive devices. The advice and recommendations provided by the literature encountered by this researcher could be of value in education and treatment planning for occupational therapists with the disabled and able-bodied community.

Summary

When a person has a disability, which often includes the use of adaptive equipment, social interactions by the able-bodied often change due to the stigma of the disability and the adaptive devices. Able-bodied persons often feel uncomfortable and often hold negative attitudes in regards to encounters with the disabled. Able-bodied persons continue to view disability as tragic and a loss of quality-of-life. This attitude is often held because of the adaptive equipment itself, since it symbolizes the disability. Conversely, most disabled people view their disability and the equipment they use as simply, a fact of life, an integral part of who they are, and they often pride themselves on the skills and achievements gained in life activities because of the disability. Due to the attitudes held by the able-bodied, social interactions which lead to social relationships may be stifled in regards to the disabled public. Occupational therapists are skilled in facilitating growth and development in psychosocial skills

and relationships and can assist in fostering positive social interactions and relationships between the able-bodied and disabled public.

CHAPTER 3

DESIGN AND METHODOLOGY

Purpose

The purpose of this study was to explore the extent to which the use of a wheelchair appears to affect social interaction with the general public.

Questions

This research was designed to answer the following questions:

1. Does the general public's quality of social interaction change or appear different, when an encounter takes place with an individual, depending on if the individual appears to be able-bodied or appears disabled using a wheelchair?
2. Does the general public's positive or negative social interactions differ when an individual is sitting in a wheelchair, apparently disabled, and when an individual is sitting on a bench, apparently able-bodied?

Design and Sample

This research design is a qualitative, descriptive study using the observational method to describe social interactions of the population sample.

The population sample included 120 randomly selected able-bodied adults who passed by the participant in an indoor California shopping mall. At no time were persons in

the population sample asked to identify themselves. The population sample was anonymous to the researcher and participant.

The participant in the study was a 40-year-old, able-bodied caucasian female. The participant was chosen because she had experience in working with persons with disabilities and the use of wheelchairs. An able-bodied participant was chosen, specifically, so that the use of the wheelchair would be the only visible variable in the scenarios of the study.

Procedure

The researcher viewed the participant in two scenarios and recorded the social interactions of the population sample. The researcher sat 15-20 feet away from the participant, maintaining a surreptitious presence during both scenarios. The first scenario was as follows: The participant and researcher arrived at the mall together. The participant casually seated herself at the designated bench for the duration of the study. Then, the researcher casually walked through one of the nearby shops, walked back out, and sat on a bench behind the participant for the duration of the study. The participant was dressed in casual attire. During the scenario, the participant remained stationary and asked the population sample for the correct time of day. The participant began by posing the question to the first passerby in an oncoming direction and then proceeded to ask

the same question approximately every minute to different passersby for a duration of one hour. The participant had a watch with a second hand to judge the approximate time. The participant asked the question in the same pleasant manner of each passerby. The participant did not initiate further conversation; however, the participant responded if the passerby initiated dialogue. During the scenario, the researcher recorded the social interactions of the population sample on a check-off charting system. The social interactions recorded included: eye contact, staring, gaze aversion, smiles, greetings, conversation, touch (negative or positive), negative gestures, path avoidance, or no response (see Appendix A). These social interactions were checked off as the participant initiated the question to the population sample.

The second scenario mirrored the first scenario with the exception that the participant was sitting in a wheelchair, instead of sitting on a bench. The participant used the wheelchair for mobility in and out of the mall. The second scenario took place two weeks following the first scenario. Both scenarios included the researcher and the participant arriving at the shopping mall together and discreetly proceeding to the predetermined areas to conduct the study. Following the completion of each scenario, the researcher and participant left the shopping mall together.

Instrument

A charting table (Appendix A) was used as the instrument for recording social interactions. The charting table was used as a check-off system to note those social interactions that the population sample exhibited when asked the time of day. The numbers in the first column represent each passerby included in the study. The remaining columns identify the social interactions that were observed. The researcher simply checked off those social interactions that the subjects exhibited. There was one check charted for each social interaction category per each subject. This charting instrument was adapted from a study completed by Eddy, Hart, & Boltz (1987) and was described by one of the authors, L. A. Hart (personal communication, September 11, 1995).

CHAPTER 4

DATA AND RESULTS

Introduction

The apparent effects of a wheelchair on social interaction in the general public were investigated in this study. The observational method was used to collect data in two separate scenarios. The first scenario consisted of one participant portraying an able-bodied person, sitting on a bench in a California shopping mall, asking for the correct time of day of 60 able-bodied adult passersby (subjects). The second scenario mirrored the first except that the same participant portrayed a disabled person sitting in a wheelchair. The social interactions of the subjects were recorded by the researcher using the social interaction charting table (see Appendix A) to collect the data. Then, the researcher used the data to answer the questions and test the hypotheses posed by this research study.

Demographics

The participant in this study portrayed both the apparently able-bodied person sitting on a bench in the first scenario and the apparently disabled person sitting in a wheelchair in the second scenario. The participant was a 40-year-old, able-bodied caucasian female experienced in the use of wheelchairs.

The subjects consisted of 120 able-bodied adults in one California shopping mall. The subjects were anonymous to

both the participant and researcher. The subjects were chosen randomly as they passed by the participant, approximately one every minute. Apparent age, gender, and race were not recorded for this study.

Scoring

The instrument (Appendix A) used in this study was a table for charting social interactions consisting of the following categories: eye contact, staring, gaze aversion, smiles, greetings of less than 5 seconds, conversation of more than 5 seconds, touch (positive or negative), negative gestures, path avoidance, or no response. The charting table was used as a check-off system to note those social interactions that the subjects exhibited during the study. The researcher simply recorded checks for those social interactions that the subjects exhibited. Each subject received one check for each category of social interactions exhibited.

The sum of the categories were totalled for the first scenario and then again for the second scenario. The totals were compared to reveal whether there were differences in the quality of the social interactions and positive and negative social interactions for each of the scenarios.

Results

During the first scenario, where the participant portrayed an apparently able-bodied person sitting on a bench, the total of the subjects' ($n = 60$) social

interactions for each category were as follows (see Table 1): eye contact (59); staring (0); gaze aversion (1); smiles (42); greetings of less than 5 seconds (54); conversation of more than 5 seconds (5); touch (0); negative gestures (0); path avoidance (6); and no response (1).

During the second scenario, where the participant portrayed an apparently disabled person sitting in a wheelchair, the total of the subjects' ($n = 60$) social interactions for each category were as follows (see Table 1): eye contact (60); staring (0); gaze aversion (1); smiles (43); greetings of less than 5 seconds (45); conversation of more than 5 seconds (15); touch-negative (2), touch-positive (0); negative gestures (0); path avoidance (1); and no response (0).

Comparison

As seen in Table 1, the majority of responses by the subjects were similar in both scenarios for most social interaction categories. The subjects exhibited eye contact 100% of the time when the participant was in the wheelchair and 98% of the time when the participant was sitting on the bench. The subjects smiled at the participant 70% of the time when she was sitting on the bench and 72% of the time when she was sitting in the wheelchair. Gaze aversion was exhibited by the subjects 2% of the time in both scenarios. Staring, negative gestures, and positive touch were not exhibited by the subjects in either scenario. The subjects

exhibited path avoidance 10% of the time when the participant was sitting on the bench and 2% of the time when the participant was sitting in the wheelchair. There was a 3% occurrence of negative touch when the participant was apparently disabled and no occurrence of touch when the participant was apparently able-bodied. There was a 2% occurrence of no response when the participant sat on the bench and none when she sat in the wheelchair.

There appeared to be more of a difference in the subjects' responses in the categories of greetings of less than 5 seconds and conversation of more than 5 seconds. The subjects exhibited greetings of less than 5 seconds 90% of the time when the participant sat on the bench and 75% of the time when the participant sat in the wheelchair. There was an 8% occurrence of conversation of more than 5 seconds when the participant appeared able-bodied and a 25% occurrence when the participant appeared disabled.

Question 1:

Does the general public's quality of social interaction change or appear different, when an encounter takes place with an individual, depending on if the individual appears to be able-bodied or appears disabled using a wheelchair?

The following four interaction categories were used to examine if there were differences in the quality of social interactions exhibited by the subjects for each scenario: eye contact, smiles, greetings of less than 5 seconds, and

conversation of more than 5 seconds. In this study, it was assumed that conversations of more than 5 seconds ranked higher in quality than greetings of less than 5 seconds, and that these verbal interactions ranked higher than smiles, which ranked higher than eye contact (Mader et al., 1989). As seen in Figure 1, eye contact occurred 59 times out of a possible 60, indicating a 98% occurrence when the participant sat on the bench, and occurred 60 times out of a possible 60, indicating a 100% occurrence when the participant sat in the wheelchair. Smiles occurred 42 times out of a possible 60, indicating a 70% occurrence when the participant sat on the bench, and occurred 43 times out of a possible 60, indicating a 72% occurrence when the participant sat in the wheelchair. Thus, there appeared to be little to no difference in quality of interactions in the categories of eye contact and smiles. Greetings of less than 5 seconds occurred 54 times out of a possible 60, indicating a 90% occurrence when the participant sat on the bench, and occurred 45 times out of a possible 60, indicating a 75% occurrence when the participant sat in the wheelchair. Conversations of more than 5 seconds occurred 5 times out of a possible 60, indicating an 8% occurrence when the participant sat on the bench, and occurred 15 times out of a possible 60, indicating a 25% occurrence when the participant sat in the wheelchair. Thus, in these interaction categories, there was a difference in quality of

Figure 1. Comparison of Quality of Social Interactions

interactions when a person sat on a bench, apparently able-bodied and when a person sat in a wheelchair, apparently disabled.

Question 2:

Does the general public's positive or negative social interactions differ when an individual is sitting in a wheelchair, apparently disabled, and when an individual is sitting on a bench, apparently able-bodied?

The following categories were used to examine if there were differences in negative social interactions: staring, gaze aversion, negative touch, negative gestures, path avoidance, and no response. As seen in Figure 2, when the participant sat on the bench, the total of negative interactions for all categories was 8 occurrences out of a possible 360 indicating a 2% occurrence; when the participant sat in a wheelchair, the total was 4 occurrences out of a possible 360, indicating a 1% occurrence.

The following categories were used to examine if there were differences in positive social interactions: eye contact, smiles, greetings of less than 5 seconds, conversation of more than 5 seconds, and positive touch. As seen in Figure 2, the total sum of positive interactions were tallied for all categories, with a sum of 160 occurrences out of a possible 240, indicating a 67% occurrence when the participant sat on the bench, and a sum of 163 occurrences out of a possible 240, indicating a 68%

Figure 2. Comparison of Positive and Negative Social Interactions

occurrence when the participant sat in the wheelchair.

The results indicate negligible differences in the positive and negative interactions when a person sat on a bench, apparently able-bodied and when a person sat in a wheelchair, apparently disabled.

Conclusion

In conclusion, the results of this study indicate that the use of a wheelchair by an individual does not appear to affect the general public's negative or positive responses to that individual as compared to an individual who appeared to be able-bodied. It was noted that the highest level of quality social interaction, conversation of more than 5 seconds, appeared to take place more often when a person appeared to be disabled, sitting in a wheelchair, versus a person appearing to be able-bodied, sitting on a bench.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND SUMMARY

Discussion

There appeared to be a negligible difference in the positive and negative social interactions with the subjects when the participant appeared able-bodied, sitting on a bench and when she appeared disabled, sitting in the wheelchair. For both scenarios, the general public responded with a majority of positive interactions and very few negative social interactions. In fact, the percentage of interactions for each of these categories was almost identical.

There appeared to be somewhat of a difference in quality of social interactions by the general public in the categories of verbal interactions. The combined categories of verbal interaction were about the same for both scenarios; yet, it was noted that the general public spent more time in conversation with the participant when she sat in the wheelchair versus when she sat on the bench. It is interesting to note that the some differences began to emerge at the higher levels of quality interactions. This study examined subjects' brief interactions during which they may have felt more comfortable than during a more in-depth interaction. Fichten and Bourdon (1986) reported that able-bodied persons tended to avoid or prematurely terminate social interactions with disabled persons. Other studies

have demonstrated that able-bodied persons have shown symptoms of social strain around persons with disabilities including short interaction times and excessive physical distance (Fichten & Amsel, 1988; Fichten & Bourdon, 1986; Fichten et al., 1991; Kleck et al., 1966). This study was based on brief social interactions of a small population sample in one California shopping mall and may not be generalizable.

One interesting result of this study was that the subjects increased their physical proximity to the participant when she was in the wheelchair. The proximity was so close at times, it appeared to go beyond acceptable body space and made the participant uncomfortable. Some of the subjects placed their watches too close to the participant's face; she literally had to move her head backward and away from the subject's watch. Two subjects touched the participant, which also appeared to invade personal body space, with the participant reporting these touches as uncomfortable. In addition, passersby, that were not a part of the study, frequently walked so close to the participant while she sat in the wheelchair that it appeared they brushed against her as they walked by. The increased physical proximatey was an interesting finding, as other studies have reported just the opposite, that is, that the able-bodied population tended to demonstrate excessive physical distance with the disabled population (Fichten &

Amsel, 1988; Fichten & Bourdon, 1991; Fichten et al., 1991).

Implications for Occupational Therapy

The findings of this study have value for continued research on social interactions as the results appear to challenge information in the literature regarding social interaction between the disabled and able-bodied population. Results indicate that social interactions may vary according to the specific situation and context of the interaction. Further research in this area is warranted in order to provide additional data to occupational therapists who are responsible for facilitating positive relationships between the disabled and able-bodied population, not only in the rehabilitative setting with the disabled, but also in the able-bodied population in the community.

Recommendations

Additional research is needed to focus on other variables. The use of an electric wheelchair versus a manual wheelchair may alter interactions from the general public. Research is needed to determine if adaptive equipment other than wheelchairs elicit different reactions from the general public. Gender specific studies could be conducted to see if there is a difference in the reactions of men and women when they encounter a person using a wheelchair. Different socio-economic climates could be researched for possible differences in social interactions when an encounter takes place. Interviews could be conducted with persons who

actually have disabilities and their responses compared to those of the able-bodied. The content of conversations and the feedback from the participant may reveal interesting information. Different levels of social interaction from superficial to more in-depth, personal, and intimate interaction is warranted. The specific social setting should be taken into account for further study, i.e., home, work, or different community settings.

Summary

In this study, data were collected to determine whether the use of a wheelchair appeared to affect brief social interactions with the general public. Specifically, the study examined whether there were differences in the quality and positive and negative interactions with the general public, depending on whether a person sat in a wheelchair, apparently disabled, or sat on a bench, apparently able-bodied. In two separate scenarios, one adult, able-bodied female, participated as both an able-bodied person, sitting on a bench, and then as a disabled person, sitting in a wheelchair. The participant elicited responses from 120 randomly selected able-bodied adult passersby in a shopping mall, by asking for the correct time of day. The researcher recorded the interactions of the passersby. The interactions recorded were: eye contact, staring, gaze aversion, smiles, greetings of less than 5 seconds, conversations of more than 5 seconds, touch, negative gestures, path avoidance, and no

response. Results indicated that the general public exhibited negligible differences in the positive and negative social interactions toward the participant when she sat on the bench and when she sat in the wheelchair. There was little to no difference in quality of interactions exhibited by the general public in the categories of eye contact and smiles. Some difference was noted in the quality of social interactions in the verbal categories of greetings of less than 5 seconds and conversation of more than 5 seconds. The general public exhibited the highest level of quality social interaction, conversation of more than 5 seconds, more often when the participant sat in the wheelchair, apparently disabled. The general public appeared to spend more time with the participant when she sat in the wheelchair.

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APPENDIX A
Instrument

[illegible]

APPENDIX B
Consent Form

A campus of The California State University

College of Applied Sciences and Arts • Department of Occupational Therapy
One Washington Square • San José, California 95192-0059
Main Office: 408/924-3070 • Fieldwork Office: 408/924-3078 • FAX: 408/924-3088

AGREEMENT TO PARTICIPATE IN RESEARCH
SAN JOSE STATE UNIVERSITY

RESPONSIBLE INVESTIGATOR: Nora L. S. Merck

TITLE OF PROTOCOL: A descriptive study on the effects of a wheelchair on social interaction.

I have been asked to participate in a research study that is investigating the effects of the use of a wheelchair on social interaction. The results of this study should further our understanding of how the use of a wheelchair may impact the social interaction between the wheelchair user and the able-bodied public.

I understand that:

1) I will be asked to participate in two scenarios for this study. I understand that in the first scenario I will be sitting on a bench, portraying an able-bodied person. During the second scenario I will be using a wheelchair for mobility and sitting in the wheelchair, portraying a disabled person. During these scenarios I will be eliciting responses from the public by asking a simple question. Each scenario will be approximately one hour in duration. I understand that when I am using the wheelchair, I will remain in the wheelchair until the scenario has been completed. When the scenario is complete, I will meet the researcher in a predetermined area to discreetly transfer out of the wheelchair. I understand that during both study scenarios, the researcher will chart the social interactions of those people to whom I question. I am aware of the procedures to assist in completion of this study. I understand that I will have an opportunity to participate in a pilot study which will include use of a wheelchair.

2) The possible risks of this study are minimal. I may encounter different reactions from the public when sitting in a wheelchair in comparison to sitting on a bench. The time to complete both scenarios may be of some inconvenience.

3) One possible benefit of this study to me is increasing my awareness of how the public may differ in how they interact with an apparently able-bodied person versus an apparently disabled person using a wheelchair. This information will be of benefit to my practice as an occupational therapist.

4) The results from this study may be published, but any information from this study that can be identified with me will remain confidential and will be disclosed only with my permission.

5) Any questions about my participation in this study will be answered by Nora L. S. Merck (916) 684-0139. Complaints about the procedure may be presented to Dr. Gordon Burton, Graduate Advisor for the Department of Occupational Therapy, at (408) 927-3074. For questions or complaints about research subject's rights, or in the event of research-related injury, contact Serena Stanford, Ph.D., Associate Academic Vice President for Graduate Studies and Research, at (408) 924-2480.

6) My consent is given voluntarily without being coerced; I may refuse to participate in this study or in any part of this study, and I may withdraw at any time, without prejudice to my relations with San Jose State University.

7) I have received a copy of this consent form for my file.

My signature indicates that I have read the information provided above and that I have decided to participate.

DATE:

SUBJECT'S SIGNATURE:

DATE:

INVESTIGATOR'S SIGNATURE: